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The Council of Industrial Design

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Vol. 10

# Design



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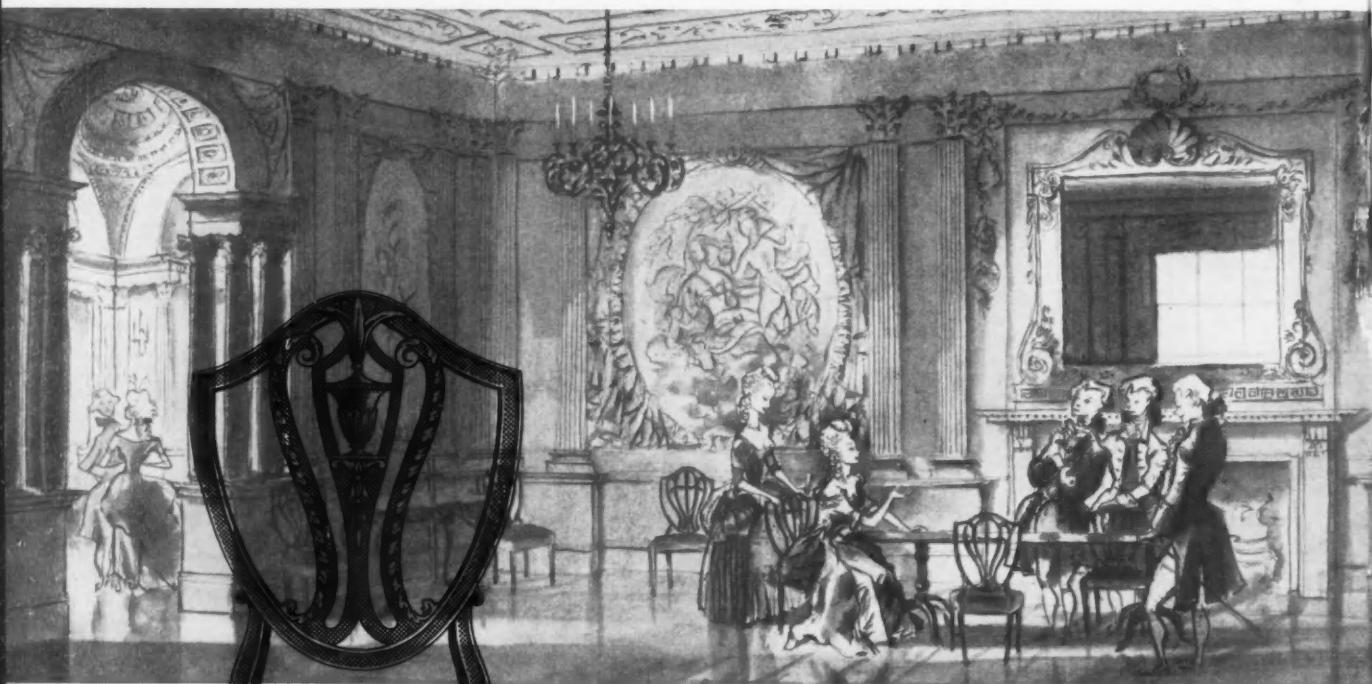
19 1957

IODICALS

PROFILE OF A CREATIVE MIND

## No. 1 Cabinet-Maker

*Of George Hepplewhite, one of the most famous of 18th century English cabinet-makers, little is known beyond the fact that he was apprenticed in Lancaster, and that his London shop was in Redcross Street, Cripplegate. He died in 1786.*



First of his craft to design furniture in keeping with the architectural style of his age, Hepplewhite adapted to cabinet-making the neo-classical manner of the Adam brothers. Delicacy and grace are allied, in his best work, with a flair for ornamentation. His genius is epitomised by inlay, rather than carving, and he worked extensively with the exotic inlay woods so popular in his day. It is in chair design that his originality of thought is particularly exemplified. He was the most successful user of the shield back, and his chairs are characterised by slight legs—plain, fluted or reeded—that taper to a spade foot. The appearance of fragility in much of Hepplewhite's work belies its constructional soundness.

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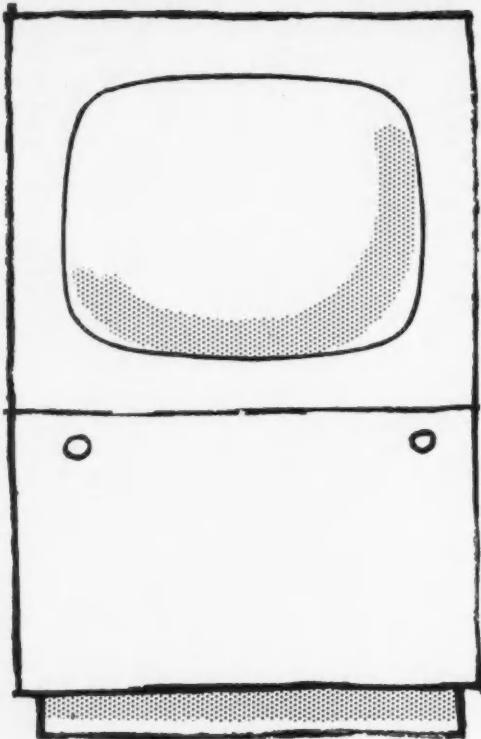
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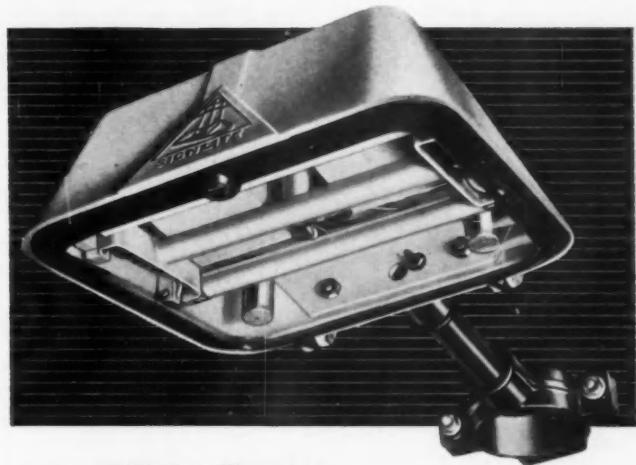
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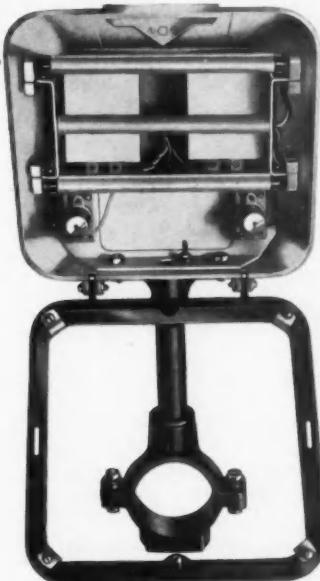
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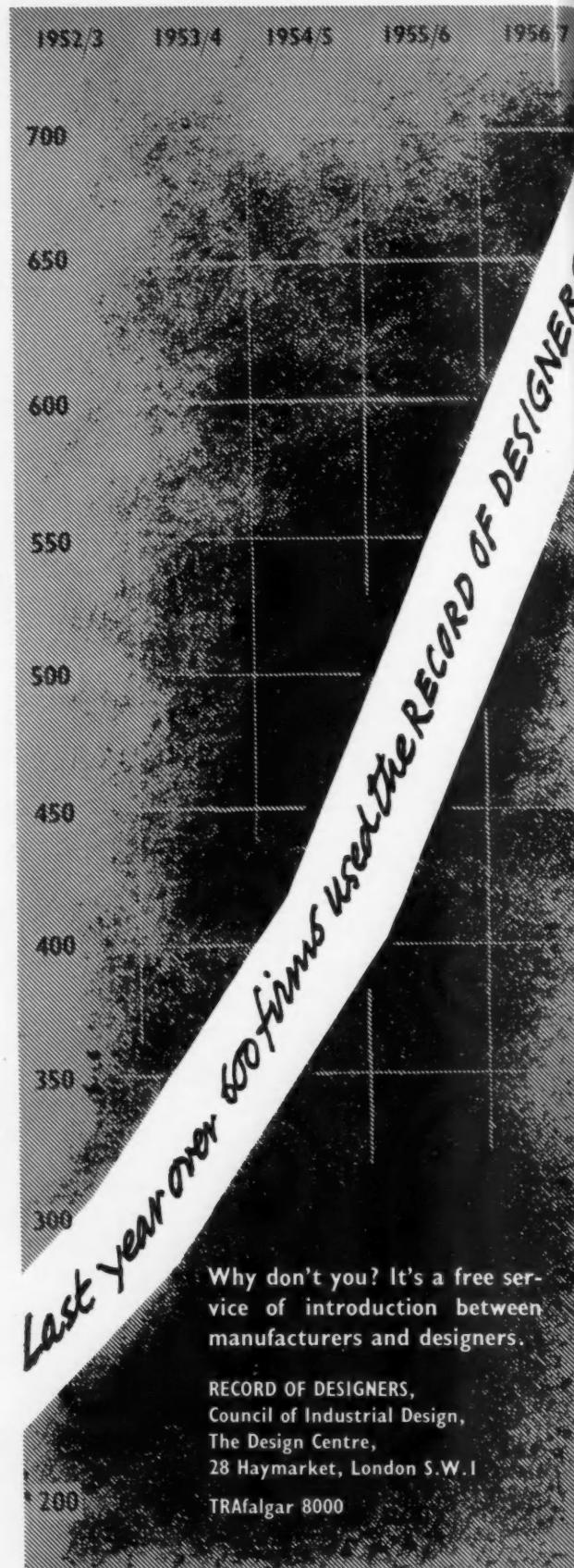
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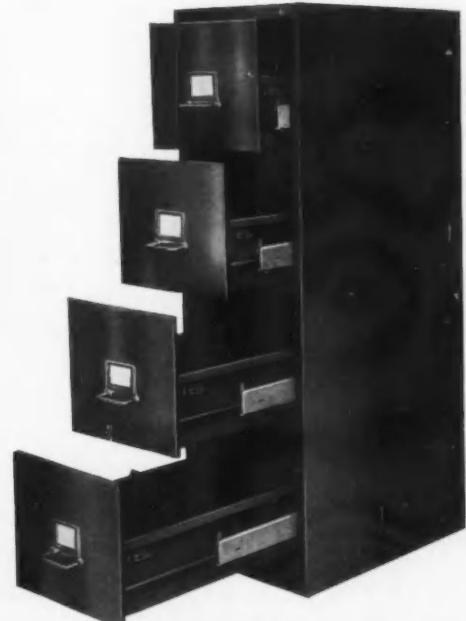
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Number 103

July 1957

# Design

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## RECORD OF DESIGNERS

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## 'A grave disservice'

"YOUR MODERN ARCHITECTS AND DESIGNERS are doing a grave disservice to our industry". The complaint was made by a carpet manufacturer, but it has been echoed in Stoke-on-Trent and Stourbridge and perhaps in other centres of our old craft-based industries.

It arises from the apparent conflict between the modern preference for simple, uncomplicated shapes or patterns and the long investment by these industries in skills and techniques that can beat the rainbow for colour and rival the honeycomb for ingenuity. Even a novice with a second-hand loom in the bush can weave a plain carpet or one with simple dots and dashes. If that is what is wanted it can be done as well and probably more cheaply in South Africa or Australia or Canada; and our European competitors can undercut us at it too.

But, the argument runs, few can match our multi-coloured chintzes or our machine woven reproductions of complicated Orientals, that employ to the full the skilled craftsmen and colourists of Kidderminster or Halifax. So, if our designers and architects, and for that matter The Design Centre itself, are really on the side of British exports they should stop demanding these simple, child's play effects and go all out for a maze ablaze which no-one can do so well abroad.

It is a serious argument to be taken seriously, for Britain has a fine investment in traditional skills, perhaps even more markedly in the hand-painting of Stoke and the hand-cutting of Stourbridge than in the automatic weaving of Kidderminster. And yet there is no denying the preference felt by many designers both here and abroad for clarity and precision rather than polychrome complexity.

What is the answer? To press our architects and designers to accept colours and patterns against their will? It could not be done, for they are rightly an independent lot. To press our industries to quit making what they do well and to compete on unequal terms with their inferiors? Again not; they would not look at it. To bring the two sides together, to show the designers and architects what our industries can do and to show the manufacturers the trends and currents that cannot be ignored?

That road makes sense, for had this collaboration not been neglected, had each side not gone its own way, the one jettisoning all tradition, the other distrusting all innovation, the problem might not have arisen. It can be solved only by proper collaboration and research, through which patterns will be produced to satisfy both the rare skills of our craftsmen and the fresh eyes of our designers. Neglect of this vital factor has led our industries into backwaters and our designers into arid pastures.

It is not too late. In fact the time is ripe for such a *rapprochement* since many designers are of their own accord searching for new patterns, textures and decoration. They would be ready to collaborate, and so would many manufacturers who have sensed being out of step with the coming generation. The Design Centre should be their meeting ground.

# PLASTICS for product design

PHILLIP MORGAN

*The increasingly important role played by plastics both in the home and in industry can be seen at the 'British Plastics Exhibition', to be held at Olympia from July 10-20. This article, by the editor of 'British Plastics', the journal which sponsors the exhibition, discusses the significance of some of the more recent developments in the industry, and the effect they are likely to have on product design.*

Maurice Broomfield



Removing a moulding for part of a refrigerator frame from an injection moulding machine. Photograph by courtesy of Monsanto Chemicals Ltd and Ekco Plastics Ltd

STATISTICS MAY BE DULL but the expansion of plastics – at about five times the rate of all other industries – can only be expressed in figures; the annual production of plastics materials at 350,000 tons is more than twice the 1950 level and the number of commonly used and distinct types of materials has increased from a mere five in 1929 to more than 20 today. Nor is this all. Most basic types are available, or can be made available, in many different formulations, adjusted chemically or by compounding with other materials to give plastics of special properties for specific jobs. A manufacturer of the familiar phenolic material may have up to a thousand formulations on his list; and the broad class of vinyls covers a number of materials from polyvinyl chloride, which is familiar enough, to a more obscure type like polyvinyl pyrrolidone.

The extraordinary range of plastics must be confusing, especially to the man who blankets them all under the omnibus, and often derogatory title, 'plastic'. But why the range? The plastics technologist uses his materials like a carpenter uses his tools; he chooses, or should choose, the right one for the job, and if he has no suitable material he should say so. Realisation of this basic approach, together with a conscious effort to distinguish between the major types of material, will help producer, designer, public and industrial consumer alike.

#### Developments in polythene

One of the features of the rapidly changing scene has been the extraordinary growth of polythene. Discovered in 1933 by an ICI pure research team, polythene was being developed commercially on a small scale for electrical purposes just before the last war and, during the war, its use was mainly confined to radar applications. Post-war developments, however, have been remarkable. The manufacture of film has opened enormous markets in packaging and the introduction of polythene moulding material has been very successful, particularly in household goods. Polythene used to be regarded, except by the very knowledgeable, as a distinct material and free from the complications which obtain with many other plastics formulations. Recently, however, new types of polythene have been developed which now make this subject as complex as any other group of plastics. The original polythene was made by a high pressure process, while the newer types are mostly made by catalytic low pressure methods. There are many differences between the two basic types with variations bridging the two. The materials made by the low pressure method are of a higher density than the standard high pressure grades. This property (ie density), is gradually being accepted as characterising the different types of polythene. It is complicated, however, by the fact that high density materials may also be made by high pressure methods.

High density polythene differ from the low density or standard types in several ways. They have increased heat resistance, greater rigidity, higher tensile strength, improved resistance to certain types of solvents, and

lower permeability to gases and vapours. These different properties make some new applications possible. For example, it is possible to mould products which can be sterilised since the melting points of the high density grades are higher than those of the low density types.

Production of the high density materials has so far been on a very small scale in this country. ICI now produces a grade by the high pressure method and the Shell Chemical Co Ltd, which has the exclusive licence for the German Ziegler low pressure method, is as yet only in the pilot plant stage. The Distillers Co Ltd has also announced plans for a low pressure plant for the manufacture of these high density materials based on a US process.

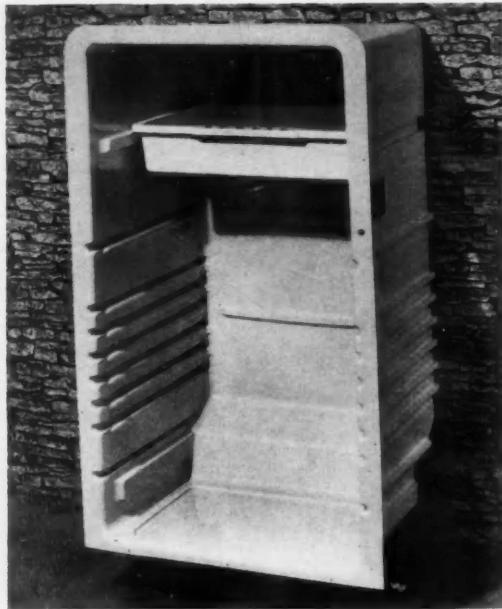
The ICI plants, which so far have produced all our standard grades of polythene, are being extended and capacity is expected to be 57,000 tons by the end of this year, with a further extension to 90,000 tons in 1959. By that year, or 1960, the total polythene production capacity will be of the order of 130,000 tons and will include the Shell and Distillers plants mentioned and, also, the plants now being built by Union Carbide Ltd (to be marketed by Bakelite Ltd) and by Monsanto Chemicals Ltd. When these production plans are realised, polythene will become the most important single group of plastics materials.

Evaluation of the newer types is not yet complete. Quantity production is still awaited for proper market testing here, and there are some difficulties in processing. Careful consideration, for example, must be given to the design of a moulded product and particularly to the design of the moulding tool, in order to prevent loss of dimensions which can appear as warping. Correct positioning of the gates, apparently, can overcome this difficulty. These evaluation problems are temporary and there is no doubt that the high density materials provide a valuable addition to the range of available plastics, although it is not expected that they will replace the low density types. It has, in fact, been estimated that high density material will eventually form 40 per cent of polythene output.

#### Plastics in refrigerators

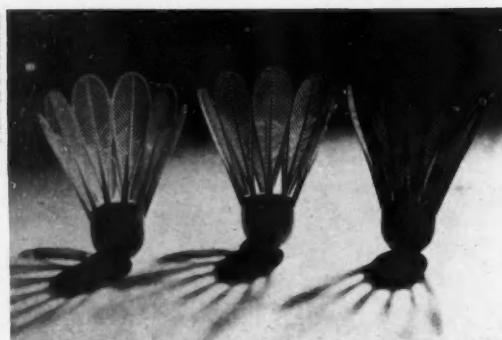
The use of plastics in refrigerators has a very great potential. A US method for constructing refrigerator housings, employing a sandwich structure of polyester/glass and polystyrene surfaces with a foamed polystyrene core between, was described in 'Glass Fibre' (DESIGN February page 29). The nearest approach to complete housings in this country is the cabinet liner deep-drawn from polystyrene (and possibly vinyl) sheet. Refrigerator manufacturers, while obviously interested in such a project, have expensive vitreous enamel plants on their hands and must be thoroughly convinced of the advantages of a plastics housing before switching. However, details of a full-sized plastics cabinet lining, produced for the Lec Refrigeration Ltd's 6 cu ft model have recently been released. The liner, which is a single moulding formed from high impact polystyrene sheet 0.16 inches thick, has been

'The British Plastics Exhibition' is to be held at Olympia, London, from July 10-20. The Exhibition will be open to the public from 10 am - 6 pm; on July 13 and 17 it remains open until 8 pm.



The first full-sized plastics cabinet lining which has been produced in this country is for a refrigerator by Lec Refrigeration Ltd. The liner, a single moulding formed from a high impact polystyrene sheet, was vacuum formed by Clearex Products Ltd from sheet by Iridon Ltd.

Maurice Broomfield



Shuttlecocks made of polythene.



Pendant lighting fitting: the diffuser is in translucent cellulose acetate. DESIGNER Paul Boissevain MAKER The Merchant Adventurers Ltd.



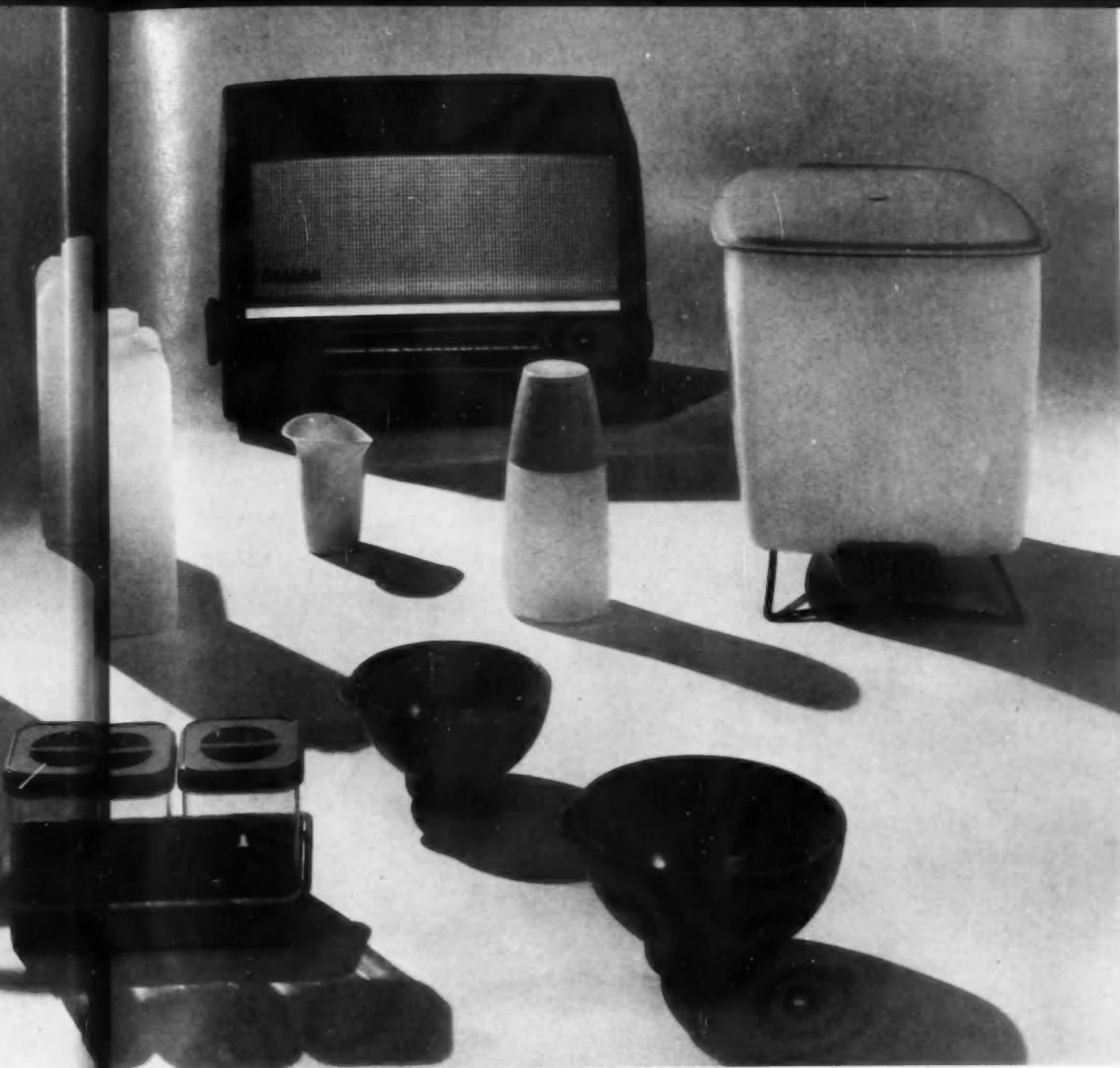
vacuum formed by Clearex Products Ltd from Iridon Ltd's polystyrene sheet.

Meanwhile, the chief uses of plastics in this field are confined to door liners and to fittings such as trays and boxes. In the most recent example, some 50 separate mouldings, all in polystyrene except for knobs and door catches, have been used for the four models of the new 'Frigidaire' range. These components were moulded by Ekco Plastics Ltd; the tools themselves absorbed 75,000 man hours and the mouldings were completed from design stage to production in less than six months.

#### Mass production of glass reinforced plastics

More publicity per lb of product has been given to glass reinforced plastics than to any other branch of the industry. But, in spite of some dramatic mouldings and this widespread interest, the actual quantity of glass reinforced plastics is still comparatively small.

One of the obstacles to expansion in this field is the difficulty of devising mass production methods for large products. A solution to this problem has been



A selection of products which have been made wholly or partly from plastics materials: radio receiver by Philco (Overseas) Ltd, bucket by Stewart Plastics Ltd, bottles by Damancy & Co Ltd, jug by Brookes & Adams Ltd, pedal bin by Ekco Plastics Ltd, mixing bowls, canisters and vacuum flask by the Halex Division of the British Xylonite Co Ltd.

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developed by Bristol Aircraft Ltd, where work on these materials is a necessity for aircraft construction. Forced to develop a method which would give mouldings with consistent properties, a process of resin injection has been evolved which has now progressed to the point where it can be described as a fully-automatic method for glass reinforced plastics. Briefly, the mould is loaded with glass fibre material, closed, and passed to the next station where resin is forced under pressure into the loaded cavity; the resin is cured and the moulding is ejected before the mould passes round again to the glass fibre loading station, thus completing the cycle. Various aids to automation can be incorporated into the system so that the cycle can become fully-automatic.

At present, this system is at work on aircraft components but it is thought that there is no reason why it should not be adapted to other products, even as large as a complete car body.

"The future of the plastics industry", says one US expert, "lies in the garbage can". By this, he means that big volume business in plastics depends on entry

into the market of disposable products. To some extent, this has already been achieved in the packaging field through film wrapping, bags and windowed boxes, but a bigger potential awaits the industry in products such as the disposable cups for drinking dispensers (The Metal Box Co Ltd has recently entered this field), ice cream containers and picnic ware.

These examples are all based on polystyrene and, while picnic plates will probably be produced by vacuum forming from sheet, containers will be injection moulded. To employ this process economically for disposable goods, will necessitate the utmost care in designing a thin-walled product, gating the mould correctly and taking advantage of the most recent developments in fast-cycling machines to ensure the quickest possible moulding cycle. Only by these methods can a moulded container be competitive with traditional materials such as paper.

Nevertheless, in spite of the production difficulties, this approach to moulding disposables is certainly on its way, and is already well established in the U.S.A.



*Sir David Eccles, President of the Board of Trade, recently opened new headquarters in Glasgow for the CoID Scottish Committee.*

## New centre for Scottish design

ALISTER MAYNARD

A LITTLE MORE THAN A YEAR after the opening of The Design Centre, the CoID Scottish Committee has staged the opening of its own new premises in Glasgow. This is not only an important event for Scotland but also in a wider context for Britain as a whole, for it forms the first permanent centre outside London for the display of goods selected for the high standard of their design.

The new headquarters are not another Design Centre, but they provide good facilities for frequent exhibitions as well as accommodation for lectures and conferences on design subjects. They also house the Scottish Committee's photographic library which contains a selected representation of items in 'Design Review'. This should be of considerable service to those in Scotland, whether they be retail buyers, public purchasing officers, architects or ordinary members of the public who are really interested in finding good examples of modern design.

The premises consist of the ground floor and basement of a typically solid, stone faced, rather austere Glasgow office building with 'classic connections'. They were found, surprisingly enough, to contain a good sized hall with a dominating glass dome and as many other qualities as might be hoped for in such a building. Time and previous occupiers had not been entirely kind but it was clear that, under the heavy

veneer of dark brown stain and paint and beyond the honeycomb of match boarding and glass office partitions, there lay hidden possibilities such as exist in official and commercial buildings all over the country.

Even if it had been thought desirable to create a wholly modern interior, the cost would have ruled this out and the more logical as well as the more practical alternative was adopted of giving the existing structure a new face, principally by an imaginative use of colour and light. The cost of rejuvenation was considerable, but it is pleasant to be able to report that no less than two-thirds of this will have been met from the results of an appeal for funds launched in Scotland by the chairman of the Scottish Committee.

The fact that the President of the Board of Trade found time to perform the opening ceremony gave great encouragement to all those interested in the promotion of good design in Scotland. There will now be new opportunities to show and to see examples of good industrial design and there will be a new meeting point where the common ground as well as the diversities in the design problems between widely differing industries can be hammered out. It can be hoped that the transformation of the building itself may encourage those who have so far shrunk from performing similar operations themselves for reasons of cash, courage or know-how to do the same.

1 Sir David Eccles, centre, who opened the new premises, seen with Sir Robert Maclean, chairman, left, and Alister Maynard, chief executive, Scottish Committee Co ID. Behind are exhibited tweeds from Border mills.

2 and 3 The exhibition 'Design Today' in the new headquarters is open on weekdays from 10 am - 5.30 pm until July 27.

4 and 5 A view of the premises as they were before redesign is contrasted with the new exhibition space seen from the library.

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# DOMESTIC EQUIPMENT

## *A survey of modern powered appliances for the home*

*This article discusses recent developments in the design of gas and electrically powered equipment for the home. The author stresses that the British manufacturer's approach is conditioned by the market he serves, and that, especially in appliances for the kitchen, improvements are generally concentrated on the individual product, rather than in any development of the kitchen as a unit. He suggests, however, that the American conception of the packaged kitchens will have a growing influence on the British industry.*

JACK HOWE

THE DESIGN of gas and electrically powered domestic equipment has developed in several ways during the past decade. Component parts are more integrated and there is a greater concern for the comfort of the user. Materials are generally more sympathetic and suitable for their purpose; there is, for example, a wider use of moulded plastics, in larger and more complex shapes, and light alloys with their corrosion resisting properties and reduced weight are taking the place of cast iron and fabricated steel in the form of spinnings and die castings.

Again, the steady growth of quantity production has been a significant factor in raising design standards. A manufacturer faced with high tooling costs and elaborate shop organisation must be sure that the product he makes will not date. If he is wise he will certainly think twice before considering fashionable designs which will no longer sell when the novelty has worn off. Thus there is an increased confidence in basic design rather than superficial styling, and many self conscious tricks and clichés are disappearing.

Many good modern designs have not been developed, or have been abandoned after a brief and timid appearance, because they have been new and therefore suspect by a naturally conservative public. In such circumstances it has often required an act of faith on the part of the manufacturer to go ahead in spite of resistance from potential customers and, more particularly, from his own sales organisation. Those who trusted their own judgment and produced good designs eventually reaped their reward, and they have in recent years helped to create a public which is more discriminating and which is demanding higher standards of design and performance.

With this demand for higher standards many products are tending to reach a design norm and in some cases there is no very great difference between the goods offered by several firms working in the same field. One

reason for this is that in order to satisfy a definite set of conditions the number of good alternative designs must, of necessity, be limited. Another is the tendency for manufacturers to wait until an enterprising firm has developed a new product and, as soon as its popularity is ensured, produce near copies, taking care that they do not infringe design rights or lay themselves open to charge of plagiarism. Most electric irons for example have well shaped handles and easily worked heat controls, all based on a pre-war model which was revolutionary in its time. Refrigerators are little more than metal boxes differentiated externally by a handle or nameplate. Cleaning appliances, convector heaters and cookers have to a lesser degree followed the same trend. Disregarding the copyists this is not a bad thing in itself, as it indicates that the designs are the result of working to a specific programme of needs rather than mere expression of personal whim. But the salesmen still cries out for additional eye appeal, and this sets the designer a new and difficult problem.

### **Structure and decoration integrated**

The desire for decoration and ornament in human surroundings is fundamental and natural. Every mature age of architecture has left a legacy of enrichment to illustrate the architect's complete and final mastery of his art. Such decoration, if used rightly, will express the basic structural form of the building, emphasise focal points, and heighten emotional impact. In a building such as King's College Chapel, Cambridge, it is impossible to separate structure from decoration, a completely integrated is every detail with the whole unified conception.

So with the products of industry the demand for decoration will increase as production techniques are mastered, and what we now call good design becomes the accepted standard. If such decorative treatment forms part of the normal design process it will take

*Illustrations 2, page 21, 2 page 23, 2 page 26, and those on page 25, are by Sam Lambert.*

*Retail prices quoted are approximate and include purchase tax where applicable.*

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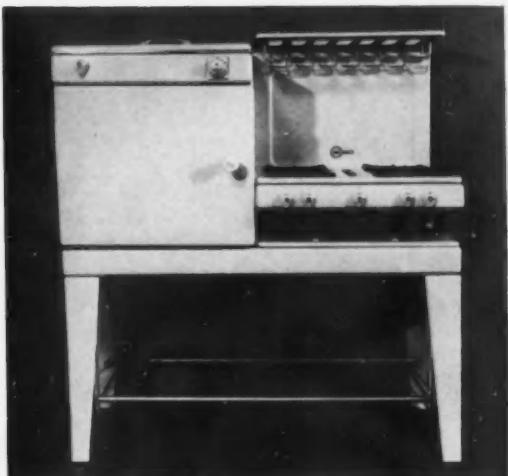


1 Heart-high oven and separate hotplate combined with storage.  
MAKERS CSA Industries Ltd (cabinets) and Sydney Flavel Ltd (cooker).  
Cooker only £135.

2 Side-by-side oven and hotplate.  
MAKER Radiation Group Sales Ltd.  
£49 19s 6d.

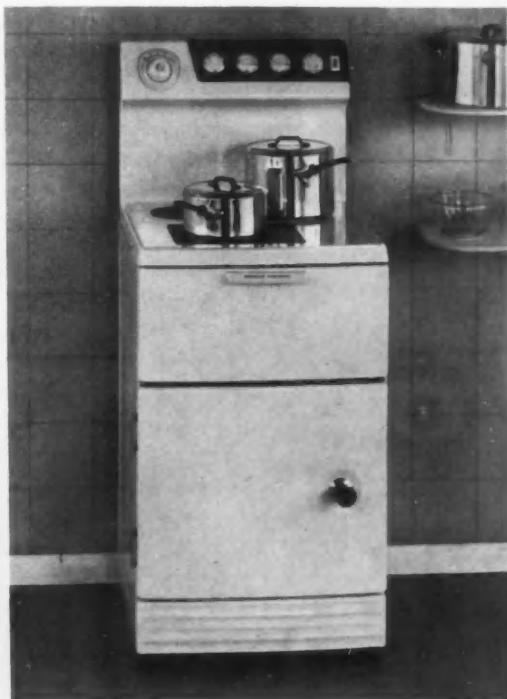
3 Free-standing gas model. MAKER The Parkinson Stove Co Ltd.  
£45 11s 6d.

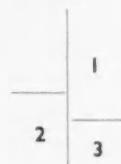
4 Free-standing electric model.  
MAKER Tricity Cookers Ltd. £35.



#### Cookers

Changes in cooker design in recent years reflect the manufacturer's growing concern for the comfort of the user. In many cases the height of the oven has been raised, and at least two manufacturers (Radiation and Flavel) produce cooking tops which are separate from the oven to form in one case part of built-in kitchen units. This idea has not been fully developed in this country, and some British manufacturers are compromising by placing the grill at eye level and the controls above the hotplate. These arrangements, however, have their disadvantages - the most obvious being that the user has either to reach across steaming pans or approach the grill and controls from the side; and in some cases these are placed so low that pans would obscure them.





place naturally and inevitably, at the same time enriching the aesthetic content of the product. If it is imposed by panic stricken salesmen striving to increase orders at all costs, the results will be superficial, unrelated and meaningless. One has only to remember the dollar grin period of American and also British car design to appreciate what can happen under such circumstances.

#### The importance of the salesman

One of the most important links between industry and the consumer is the manufacturer's sales organisation. This can be weak or strong according to circumstances and will frequently determine the success or failure of a new design. Too often the salesman is not brought in at a sufficiently early stage and receives little or no briefing on the design merits of the product he is required to sell. Equally important, he may not have had time to become familiar with a design that is perhaps strange to him, and under these circumstances he will certainly tend to be lukewarm, if not actively antagonistic. Few people can sell a new product if they do not honestly believe in what they are selling, and unless they understand why a particular design has been produced they cannot be blamed for failing to convince their customers who may be equally puzzled or prejudiced.

In general, kitchen equipment is still manufactured and marketed as separate, individual items. Cookers and refrigerators in the main are regarded as detached units and although the sink has come in for some attention in the form of integral draining surfaces with cupboards below, it is usually left for those who want a well planned kitchen to assemble the pieces of the jigsaw as best they can. At the end of the war when the government's prefabricated housing programme was put into operation a completely factory produced kitchen/bathroom unit was designed. This concentrated in one compact unit all of the complicated services and drainage, leaving only main connections to be made on the building site. A guaranteed order for very large quantities made the production of such a unit attractive to the manufacturer and resulted in a considerable saving of time and site labour. In the United States the packaged kitchen first produced by General Electric last year (DESIGN July 1956 page 42) is now becoming established; and largely because it is intended for the builder market, where it can be included in the mortgage price of a new house, the demand is sufficient to justify the high tooling costs involved. This combination of a variety of powered kitchen appliances into single compact units which can

1 Floor polisher in light alloy.  
MAKER The General Electric Co Ltd.  
£29 10s.

2 Vacuum cleaner with plastics housing. MAKER Vactric Ltd.  
£26 3s 6d.

3 Vacuum cleaner with disposable dust bag. MAKER Hoover Ltd.  
£33 9s 11d.



#### Cleaners

Today there is a wide choice of powered cleaning equipment for the housewife and competition among manufacturers in this field is growing. Technical developments aim to make the equipment easier to use and maintain, and increase the range of appliances and attachments available. One manufacturer has produced a vacuum cleaner with an expandable hose so that larger areas can be cleaned without having to move the appliance itself, and emptying the cleaner, once a dirty and unpleasant task, has been simplified by the provision of polythene dust containers which line the cleaner and can be quickly removed. However, the streamlining and space fiction styling of some of the new designs seems completely out of place in a domestic product.

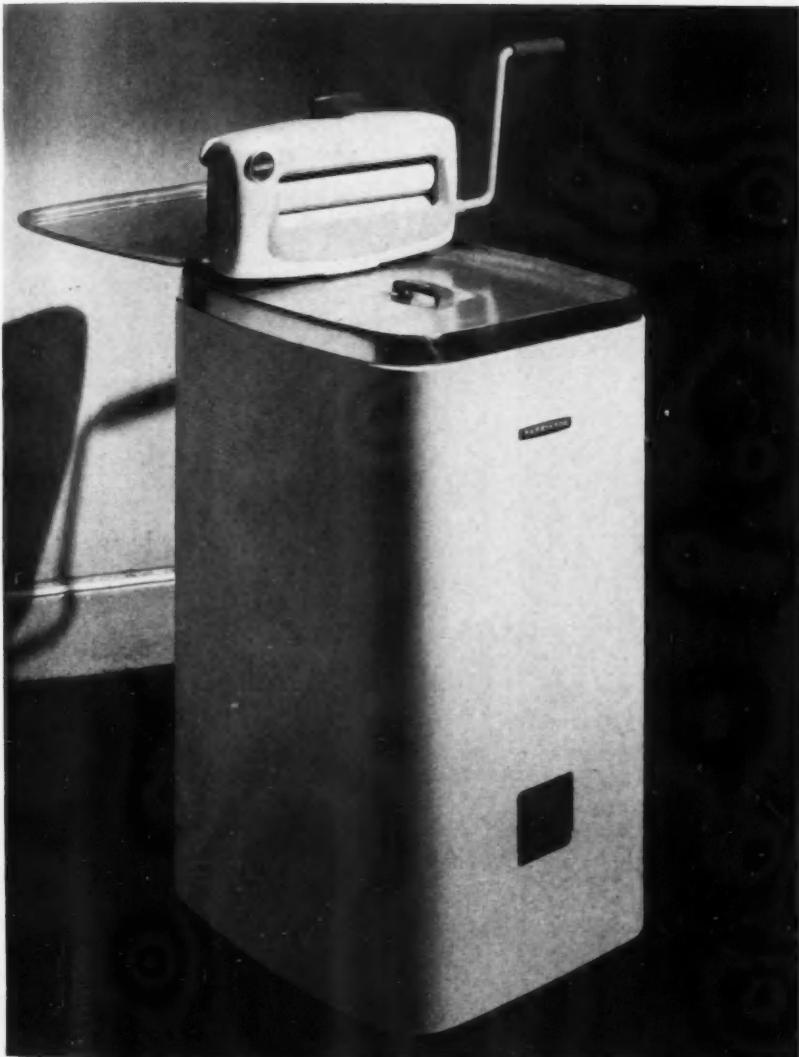
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1 Control panel in strident style.  
MAKER English Electric Co Ltd.  
£79 16s.

2 Controls for use not for glitter.  
MAKER Hoover Ltd. £78 12s 6d.

3 Compact form with crisp detailing.  
MAKER The Parkinson Stove Co Ltd.  
£52 10s.

4 Glass fibre liner gives good  
insulation. MAKER Vactric Ltd.  
£78 15s.



#### Clothes washers

The shape of the washing machine, like that of the refrigerator, is basically simple, and manufacturers have been tempted to enliven their designs with unnecessary decoration. The most successful models, however, are those in which the basic simplicity of the design is emphasised by careful detailing of the controls and nameplate. Technical developments and new methods of construction have resulted in increased efficiency. The operation of filling and emptying the washer has been speeded up, and wringers are designed so that they are simple and quick to operate, and can be folded into the washer when not in use.

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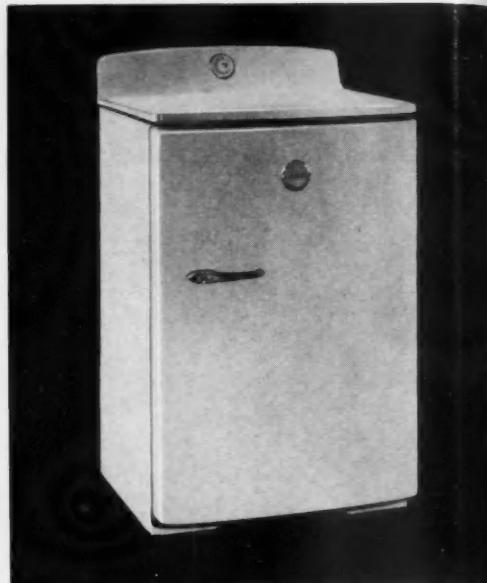
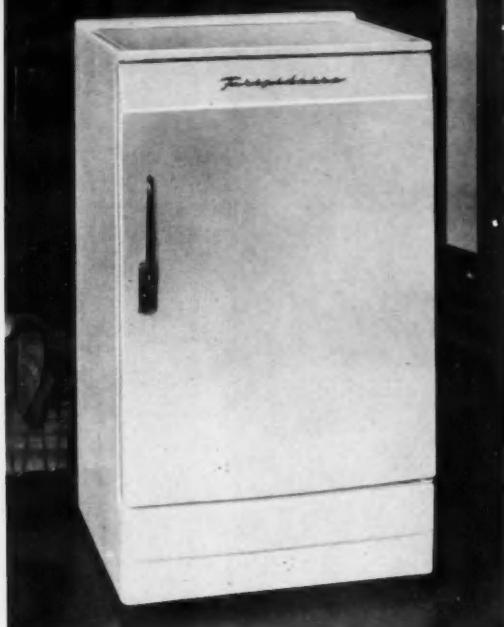
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1 Flat top and sharp corners.  
MAKER Frigidaire Division of  
General Motors Ltd. £68 5s.

2 Nameplate and control knob  
designs conflict. MAKER Coldair Ltd.  
(subsidiary of GEC Ltd). £79 15s.

3 High capacity but highly styled.  
MAKER Pressed Steel Co Ltd.  
£158 15s 9d.

4 Waist-high model built-in. MAKER  
Electrolux Ltd. £52 6s 5d.



#### Refrigerators

Although most refrigerators are designed as individual units, the majority of manufacturers have faced the problem of limited space in the average British kitchen, and the heavily modelled doors and rounded corners of some designs are giving way to more compact models with flat working tops and sharp corners that could be lined up with cooker, washing machine and fitted cupboards. As a result, ex-

ternally the refrigerator has become little more than an oblong box, so that visual interest now tends to be concentrated on handles and nameplates, in some cases unnecessarily elaborate. More efficient insulation and the use of plastics mouldings for linings have given more room for storage, and every available inch of space is used, including the inside of the door.



be installed, plumbed and wired in one complete operation creates new problems for the architect, who must be prepared to come to terms with appliance manufacturers on agreed dimensional standards. With the future development of factory made housing, the establishment of some advanced form of dimensional co-ordination will become an urgent priority.

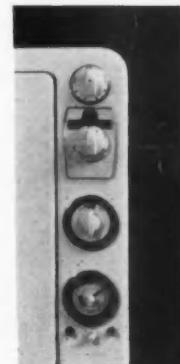
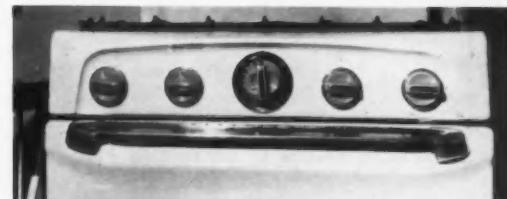
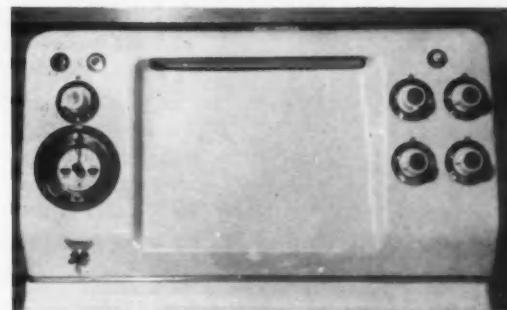
#### A new conception of the kitchen

The design of experimental kitchens has already become an important part of long term product planning among leading American appliance manufacturers. In the USA the fully equipped kitchen has been conceived almost in its ultimate perfection with automatic remote controls for every kind of operation, with cookers, refrigerators, washers and so on arranged at experimentally determined correct heights and positions. Although these dream kitchens remain showpieces of the unattainable they also provide valuable information for real design improvements which manufacturers can offer to the public. At the same time they prepare the way for a more enthusiastic public acceptance of new designs when they are introduced on the market. The separation of cooking tops from ovens, and more recently fold-away hot plates; the raising of ovens and refrigerators to more convenient heights, and setting them in flush with the wall or with built in cabinets; retractable flexes for electric kettles, percolators, toasters; the packaged kitchen itself, have all been developed as practical marketable ideas from the dream kitchens of a few years ago.

There are already signs, however, that the future may see a breakaway from this conception of an elaborately equipped built-in kitchen forming the core of the house. The development in the USA of packaged pre-cooked foods and of disposable plastics tableware may obviate the necessity for extensive conventional storage (cupboards, refrigerators or freezers), and lead to new forms of equipment for heating food. In America a great variety of special appliances, each designed for a specific job, suggests that the disintegration of the compact built-in kitchen is a process which has already begun.

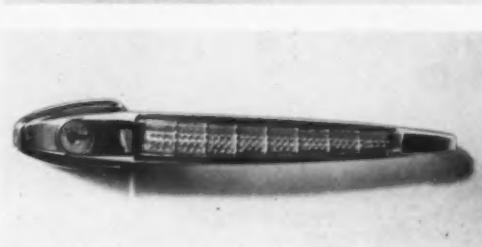
This conception of future trends in domestic appliances design is still far from being a reality, but in many other ways the American influence is making itself felt in the design of several British items of household equipment. We still retain, however, greater refinement of detail and a character more in keeping with our domestic scale. In the case of cookers the heart-high oven and the eye level grill indicate a definite desire to achieve comfortable working conditions. To this same end the mounting of controls above the hot-plate is becoming common, although opinion on the advantages gained by this arrangement is by no means unanimous.

In the long run significant developments in the design of domestic appliances will come from a closer study of changing human needs, and will increasingly involve the architect in a collaboration which will lead



#### Trim for appliances

Designers whose touch is certain within the functional limits of domestic equipment, often become coy when faced with the demand for decoration. Control panels must be *used* and so the decorative trim should be restrained but not insipid. Nameplates show the greatest weakness and designers appear to have neither the right aesthetic nor necessarily the right materials to do the job. The salesman's cry for something new for every season should be a challenge to design imaginatively, not an excuse for poor work.



## Domestic equipment

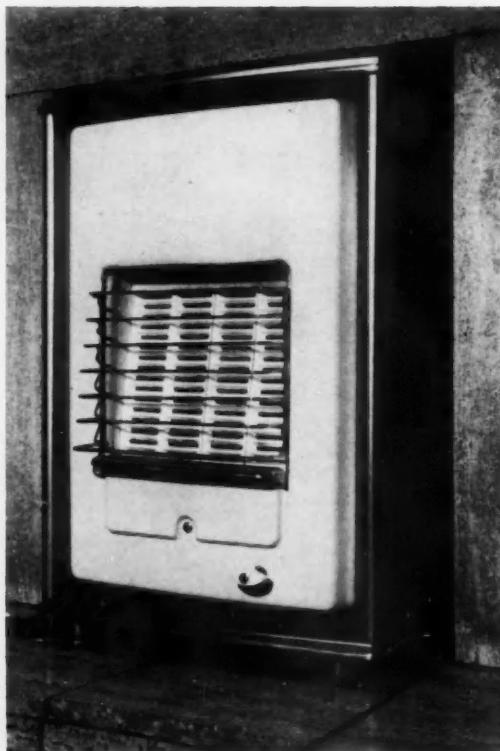
to a greater unity of the house and its equipment. The conservative taste of the English market has prevented the extravagant excesses of applied enrichment introduced on some American appliances to disguise an old product with a new cloak. This deliberate artificial obsolescence, to force the pace of sales, itself conceived by American designers, is now being renounced by some consultants who are looking for a more fundamental basis for their creative invention—a development which will be discussed in more detail next month.

In Britain the limitations of a small home market and

recent tax and hire purchase restrictions have prevented a rapid evolution of appliance design. The prospect of a Common European Market, however, considerably alters the picture, and the possibilities of more expensive tooling programmes together with the stimulus of keener competition provide new opportunities for British manufacturers and designers. It is to be hoped that the effort which is needed will not be wasted on the temporary palliative of costly looking glitter, but will be expended on long term planning for products that will meet the real needs of the future.



1 Sprightly portable free-standing gas fire. DESIGNER D. Middleton. MAKER Harper & Co Ltd. £4 7s 7d.



2 Well modelled convector gas fire. DESIGNER D. Middleton. MAKER Harper & Co Ltd. £4 7s 7d.



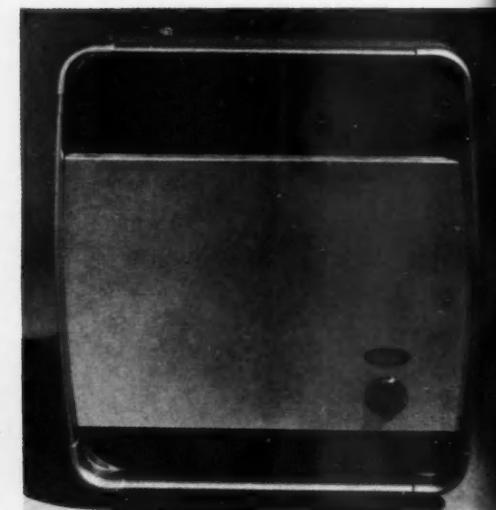
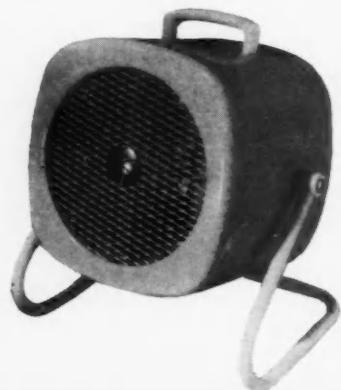
3 Portable electric fan heater. DESIGNER Robert Cantor. MAKER Gillott Electro Appliances Ltd. £9 19s 8d.

4 Portable electric fire. MAKER Morphy-Richards Ltd. £5 0s 4d. (1000 watts), £6 1s 10d. (2000 watts).

5 Free-standing electric convector. DESIGNER A. B. Kirkbride. MAKER Belling & Co Ltd. £10 10s 3d.

## Heaters

There has been a significant improvement in the design of gas and electric fires during the past 10 years; more manufacturers are employing consultant designers and greater consideration is given to the appearance of these products in relation to living room furniture. Portable gas fires are now available which do not attempt to imitate the electric fire, and models designed to fit in the hearth are more attractive. Electric convector heaters are comparatively new, and because of their efficiency and low electricity consumption, are proving increasingly popular. As competition develops the simple box shape of earlier convector heaters is giving way in some instances to a more self-conscious approach to design.



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J. CHRISTOPHER JONES

Metropolitan-Vickers Electrical Co Ltd

*Readers may be surprised to discover that automation seems to have none of the unpleasant, inhumane implications that we have come to expect from all things associated with factories and mechanised production, but is in a hundred ways the means of release from such afflictions. Automation, and the ways of life to which it gives rise outside the 'central mechanisms' (for there will no longer be factories as we know them) may be much nearer to the ways of a home based and personal craft society than anything we have known since things were made by hand. Because automation seems likely to affect life at every point it will affect design also.*

## Automation and design 1

IT IS COMMONLY SUPPOSED that automation is the means of making things without human work and that it will eventually give us unlimited leisure in which to consume a never ending stream of products from automatic factories. This vision of things to come is as profoundly disturbing as it is superficially attractive, and we wonder if it can be true.

Automation has been very simply defined as the use of machines to run machines. This definition makes it clear that automation is a different thing from the mechanisation which we already know. Mechanisation is the use of machines to do manual work, 1, overleaf, whereas automation is the use of machines to do brain work, 2. We know that the effect of doing manual work is to alter the position and form of materials and that the effect of brain work is to alter the position and form of information. So the machines that run machines must be those that can manipulate information.

It would be difficult to discuss the effects of automation on design if the information handling machines that make it possible did not already exist. Fortunately these do exist in very large numbers in such instruments as the telephone, the tape recorder, television and the camera. These devices are normally used to handle the information that entertains us and it is only when they are applied to the control of manufacture that automation comes into being.

It is not surprising to find that one of the most highly developed of information handling devices we already have - the telephone system - exhibits clearly the chief characteristics of automation. It is therefore

## Automation and design

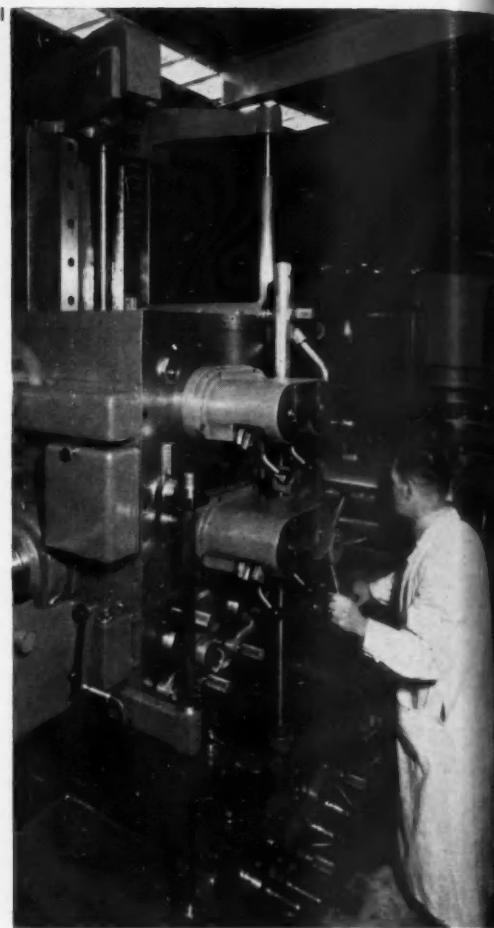
convenient to discuss automation and its affects on design in relation to the existing equipment that forms the telephone system.

One of the most remarkable things about the telephone system is that one can be so unconscious of it. The only things that one sees are the dial and handset; the automatic telephone exchanges and much of the wiring that connects them are never encountered by users of the system. This is also a most striking and important characteristic of automation – the fact that it is sharply divided into two distinct parts; the central mechanism where the automatic processes take place and the input and output devices which provide contact between people and the system.

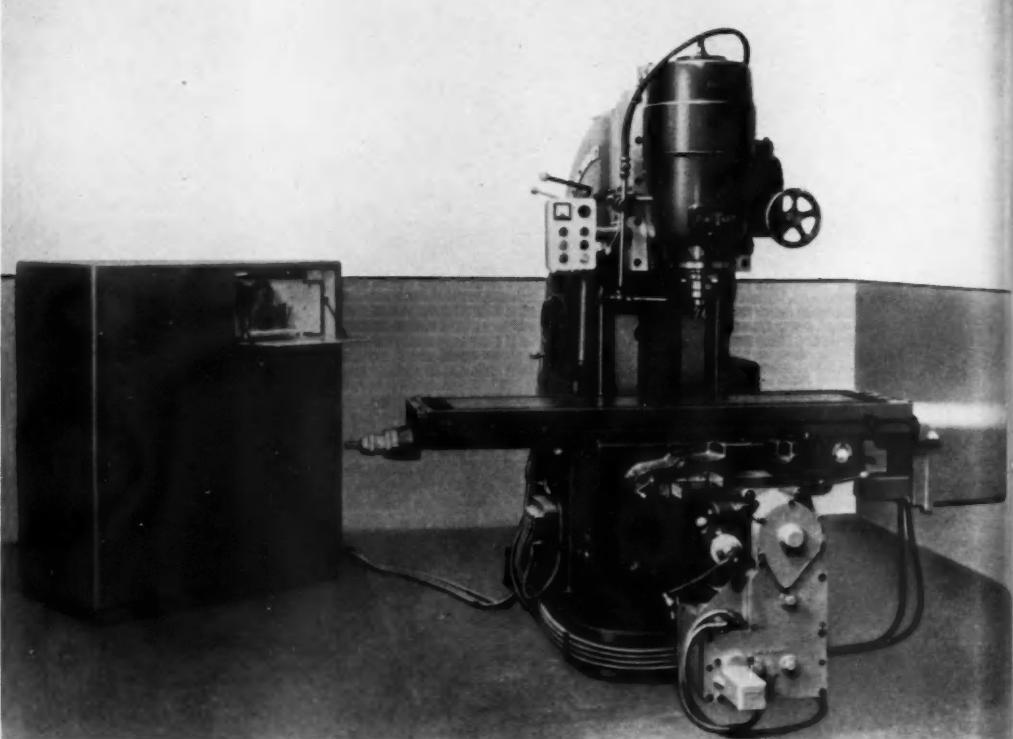
The telephone exchange is the prototype of the automation factory and it may be that the user of a telephone casually making a call from his home is the prototype of the automation worker. This relationship can be compared with the one that Lewis Mumford, in 'Technics and Civilisation', showed to exist between the printing press and the factory. As printing, first used for communication, foreshadowed the techniques of mechanisation, so the telephone, also first used for communication, foreshadows the techniques of automation.

**1** Mechanisation is the use of machines to do manual work. Such machines require a human operator who carries out the brain work that is associated with the manual work done by the machine. Horizontal boring machine produced by Craven Bros (Manchester) Ltd.

**2** Automation is the use of machines to run machines. Devices such as the computer can do the brain work that was done by a human operator. Milling machine controlled by computer, produced by E M I Electronics Ltd.



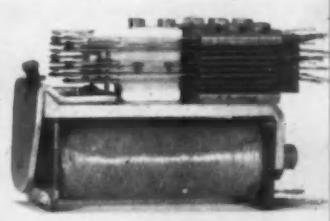
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3 Main distribution frame at a London exchange

4 GPO telephone relay unit

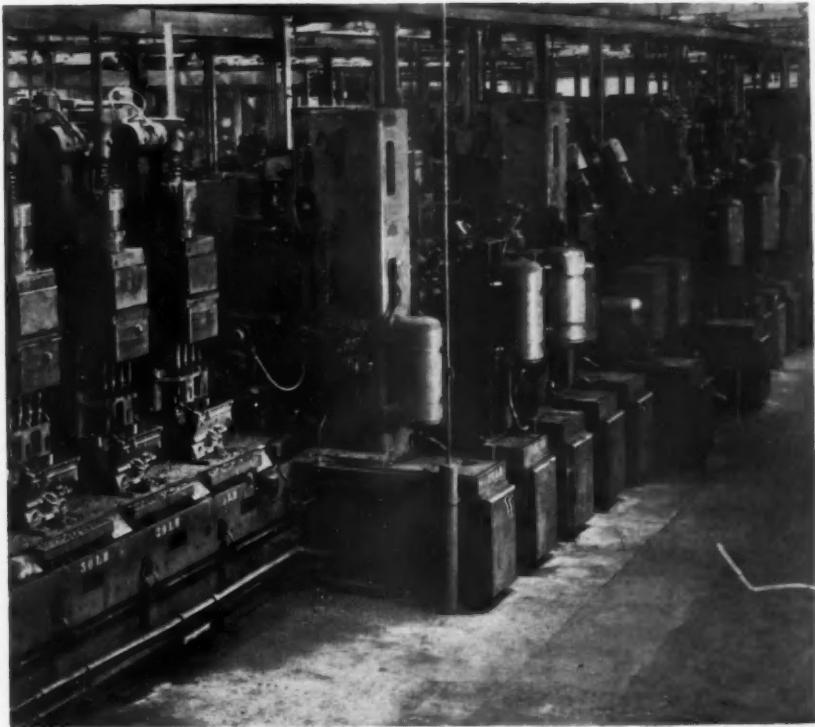


5 Transfer machine performing 160 operations on engine blocks at the Austin Motor Co Ltd. Only two operators are required

## CENTRAL MECHANISMS

THE AUTOMATIC TELEPHONE EXCHANGE, 3, handles information only, but it shows us what an automatic factory, which handles both materials and information, will be like. As might be expected there are no workers visible except for a few maintenance men who carry out routine inspections and are on call in case of breakdown. The machinery is working continuously night and day, for the one thing that automation machinery must not be allowed to do is to stop. Automatic processes must be continuous, for the cost of leaving them idle even for a short time becomes prohibitive.

There is a tendency for automation machinery to be general purpose rather than specialised and this is also illustrated in 3. We see here rows of identical telephone relays that make up the exchange. These units, one of which is shown in 4, are entirely standard and interchangeable throughout all the exchanges in the telephone system. The only difference between one exchange and another is its size, i.e. the number of general purpose units which have been put together to achieve a certain level of output. 5 shows an auto-



## Automation and design

matically controlled machine tool line that is also composed of standard general purpose units. We are already familiar with unit construction in many fields of design; perhaps this is because we are making ourselves ready for automation.

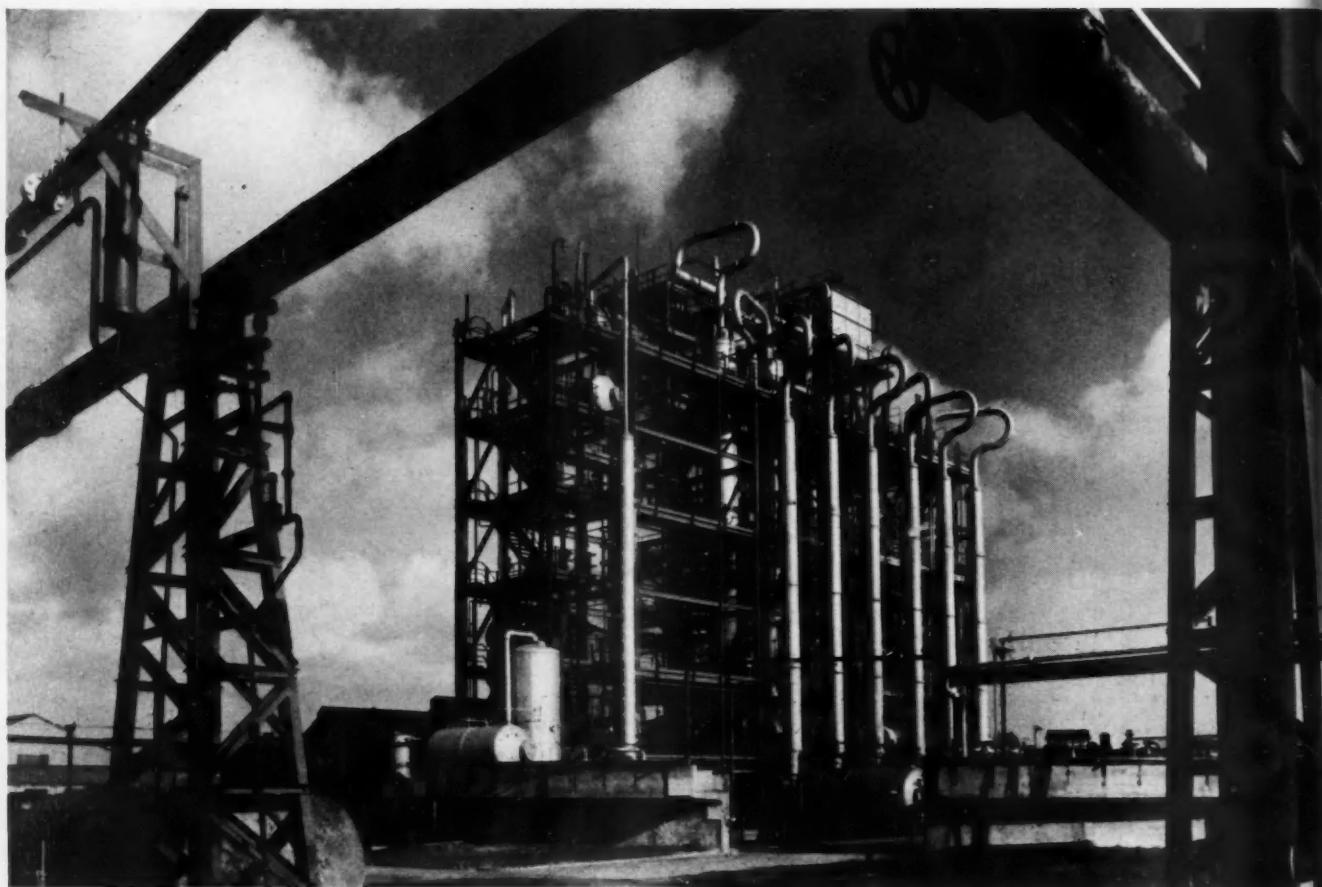
The way in which the components are arranged in the telephone exchange is dependent on one dominant factor: accessibility for maintenance. Maintenance has often been regarded as something rather trivial, but in automation it will become exceedingly important. Maintenance craftsmen will be the only ones who visit factories at all and the cost and inconvenience of stoppages are so great that every effort must be made to prevent breakdowns, or remedy them when they happen. In the telephone exchange the units are arranged in long stacks like books on shelves where they can be quickly located and easily removed. This form gives such excellent accessibility that it has already been generally adopted for many kinds of information handling machines including the digital

computer, shown on the cover of DESIGN for February.

6 shows one of the possible forms that automatic factories, or 'processing units' as they may be called, can have. The chemical plant may be typical of structures that will be used to make relatively simple commodities that are well adapted to continuous flow production. One of the few existing examples of automatic manufacture of complex products is the automatic transfer machine tool line, 5. This unit in the works of the Austin Motor Co Ltd replaces a large number of individually operated machine tools. Note the presence of general purpose machining units which are used in various positions.

As central mechanisms have, by their nature, very little contact with people, their forms are of little consequence except insofar as they are a source of inspiration to artists and decorators. This, and many other human aspects of automation that will affect life and design outside the automatic factory are to be discussed in future articles.

6 An example of the automatic factory is this silicone plant for Midland Silicones.



*In DESIGN for August, the second in this series of five articles will discuss input and output devices. As factories will no longer be the places where people work, there will be a need for contact between the automatic system of production and the people it serves. In this second article it is suggested that adaptations of such input and output devices as the telephone, television and radio will fill this*

need and in doing so may make possible a much more exact and personal matching of products to human requirements: a view which opposes the commonly held theory that automation will mean fewer design variations and more uniform products. Input and output devices may take new and more precisely 'biotechnic' forms from a combination of the disciplines of ergonomics and industrial design.

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## *new ways with SELLING*

*Self service and self selection, both in small shops and supermarkets, are new elements in the British shopping scene which are creating many difficult problems of immediate concern to the designer, the shopkeeper and the public. The rapid development of the self service principle has outstripped the ability of most firms to find an adequate substitute for the personal and intimate character of traditional shops, and careful attention to design will become an increasingly important factor as competition grows.*

Fine Fare supermarket at Slough



ALEC HEATH

THE ENGLISH have long had a reputation for being shopkeepers yet, in spite of an apparent lack of public comment, it is surprising how much their shops have changed and are changing. A brief examination of nineteenth century books, prints and other illustrative material reveals shops of individuality and character, reflecting the personality of owners and a variety of approaches based on the different trades of butcher, baker, chemist, draper, grocer, ironmonger, and so on. These characteristics originated a century earlier and survived the introduction of large plate glass windows, continuing until the first World War. The advent of the multiple store brought an identity of approach to different parts of the country and changed the character of the high street. This process is recorded in a delight-

ful small book (see page 32) resulting from a partnership of J. M. Richards and the late Eric Ravilious. The passing of the era of the small shopkeeper is in some ways regrettable but it is also inevitable. However, an examination of the early shops in multiple chains (Maypole, Home and Colonial, Liptons, International Stores, Sainsburys, etc) shows that, like the personal shopkeeper whom they replaced, the new multiple shops possessed a personal identity distinctive to each firm. The introduction of self service is the latest development in the English shopping scene, but unlike previous changes the individual character of each shop is becoming lost and is giving way to a cold impersonal approach to selling which is uniform in towns throughout the country. This survey of supermarkets, self

service and self selection shops attempts to examine some of the reasons for this.

The serious congestion and inefficiency of most of our main shopping areas for the best part of the week and particularly on Saturdays is a blatant and obvious contradiction in a society weaned on constant exhortations for increased productivity. In these circumstances, it is not surprising that self service shopping has achieved such a remarkable degree of success. It is estimated that there are now some 4,000 self service shops throughout the country and they are increasing at the rate of about fifteen a week. This unprecedented growth has brought about a change in the character of shops and shopping and it is remarkable how quickly the change has taken place.

#### Monotonous shop fittings

Rather like 'Subtopia', to which it has some affinities, it is a movement that has occurred almost imperceptibly except, of course, to the large body of people immediately concerned. It has stimulated changes in shop fittings and shop fitting techniques and led to the introduction of excellent modern refrigeration equipment and new standards of hygiene. Visually, the results are as yet much less impressive. The familiar crowded grocery windows have been replaced by clear plate glass allowing us to see all the shop; the counters have been taken away and we are free to select from well stocked shelves. With certain notable exceptions, the general type of installation follows a similar pattern throughout the country, thus producing an effect of unrelieved, repetitive monotony. This is to be seen particularly in suburban and market-type shopping areas.

The change is perhaps most noticeable in the New Towns where shops can be sited and planned without the limiting factors of crammed and badly planned premises. In Hemel Hempstead, for example, four out of six newly opened grocery and provision shops are operated on the self service principle. Self service shops originated as a result of labour shortages during the second World War, the first one being opened in 1942 by the London Co-operative Society. Since then the co-operative movement has pioneered self service into most parts of the country. Later came the changing social pattern of post-war life which, assisted by the impact of television advertising, produced a generation of shoppers who are now more amenable to experimental and changing forms of shopping, particularly where time and convenience are paramount.

#### Small shops and supermarkets

Whilst most of our initial experience has been gained by research into the more highly developed American methods the results have been different when applied to English conditions. In America, the greater distances between houses and shopping areas have made the motor car and refrigerator essential parts of the way of life, and have produced a pattern of larger purchases at longer intervals. These demands are met by large scale supermarkets situated on the outskirts of

all the main cities. Such conditions do not apply here and the English pattern is likely to be a larger quantity of small and medium sized self service shops with a limited number of supermarkets in centrally situated strategical positions.

A supermarket is a store of 2,000 sq ft or more, operating the self service principle and selling all kinds of foods, cooked and fresh meats, vegetables, and in addition, some items of household goods. Departments for hardware, glass, stationery, clothing and household textiles may also be included. A capital outlay of anything up to £100,000, together with the limited number of suitable sites available, are the two main factors restricting their unlimited development. It is a sign of the times that many of the sites were formerly cinemas.

With the exception of the supermarkets, self service shops are confined largely to the grocery and provision trades, although there are successful experiments in such diverse commodities as hardware, wines and spirits, stationery, motor accessories, and pets' food, etc. The economic advantages of an average weekly turnover of 30s per sq ft makes them equally attractive to multiple combines, co-operative stores, medium-sized firms and the small trader, but since the latter tends to build his business on personal service it is likely to remain the smallest category. After conversion from the conventional type of shop to self service, there is usually some initial resistance by customers of the older generation. This is usually overcome once they understand the convenience and advantages of the new method. It is an essential part of self service management policy to see that customers receive as much personal attention as they require and this is recognised as being particularly important during the transition period.

#### Self selection and advertising

A distinction should be made between self service and self selection. Self service means the customer serves himself or herself entirely. Self selection means the customer is free to select the merchandise he requires and hands it to an assistant. An important feature of the self selection method of selling is the necessity for large scale Press and television advertisements for well known branded products. The customer's sales resistance can be overcome and his confidence in the qualities of the merchandise sustained in this way without the presence of a salesman.

The self selection method can be applied to a much wider group of trades than is usual with self service, and it is here that the greatest influence is likely to be made on the conventional shopping scene. It can be satisfactorily added to existing shops and stores, and has greater possibilities for imaginative displays. In this respect the existing Woolworth's and Marks and Spencer's stores are a half way development towards the self selection idea, but the shops of these firms are not included in this survey as they represent a highly conventionalised form of trading. It is interesting to note the influence of the self selection method in the shopfitting of conventional shops. Many are now



Two illustrations from 'High Street', a pre-war Country Life book, by J. M. Richards with drawings by Eric Ravilious, which records the passing of the personal character of traditional individual shops. The commentary reveals that the problems discussed in this article were recognized as early as 1938.

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These towers of tinned foods at Premier supermarket, Kingston, show that traditional methods of display are still to be seen in modern self service shops and supermarkets where they are inappropriate and produce a feeling of visual indigestion. The unrelated design of the tickets adds to the confusion.



The distinguishing feature of the small United Dairies shops is the orange fascia and decorative illuminated lighting pelmet running along the top of the fixtures.



One of a series of self service shops designed by Austin Smith and Partners for Taylor Bros. The entrance and exit are well planned for a narrow frontage and the floating window display retains a feeling of spaciousness in the shop-front, and contrasts with the United Dairies floor-standing display, below left.



This is an excellent example of a well designed individual self service shop. The distribution of the vertical and horizontal shopfitting divisions, and the placing of the sensitive and readable lettering is most successful though the effect is spoiled by the temporary window notices. The window display fittings are movable. Designed by Hulme Chadwick.



New ways with selling



ABOVE This view of Mac Fisheries shop at Stoke Newington, shows excellent adjustable self selection fixtures. But the arrangement of tins could be improved, and greater use made of the good promotion showcards crowded together along the back.

LEFT and ABOVE LEFT These two examples both using repetition to good effect, show the possibilities of imaginative display techniques for self selection. ABOVE LEFT A shirt display in a man's shop at Slough. Architect Vivien Pilley. LEFT A view of a hat department in a German store (Oberpollinger). Photo courtesy 'Shop Review'.

BELOW LEFT The design of the new London Co-operative shop is a distinct advance on previous ones, though the same features could be much improved by a bolder use of colour. This example at Chingford shows the use of standardised shopfitting fixtures made by Parnall & Sons Ltd. The neat and orderly arrangement of a wide variety of foods and packs, suggests a need for some system of modular co-ordination in packaging measurements.



installing self selection shelves in the area occupied by the customers, as in the new Mac Fisheries' shops.

Using stock equipment and fittings, an average self service installation costs in the nature of £5 to £7 per sq ft. Most shops are now equipped with standardised units constructed of wood or pressed steel, movable shelving fixtures, open refrigerator cabinets, island units (poetically called gondolas) and check-out counters. There are several types of fixtures being made which are basically the same in approach and serve the functions described above. The manufacture of these fittings is a flourishing new industry, serving the needs of the home trade and overseas markets in Holland, Africa, the West Indies, Hong Kong, Singapore and other parts of the world. Manufacturers are also willing to co-operate with large users to produce standard fittings to individual requirements.

During busy periods the check-out counter is the place where bottle-necks occur and this problem has led to much research, and the production of some excellent equipment. One example is a group of machines which combine the functions of adding machines and cash registers. The British machine by The National Cash Register Co Ltd and the Swedish



LEFT The interiors of the Fine Fare shops are notable for their use of bright and successful colour schemes. But the choice of pattern for the floor in this example at Slough is unsuitable as there is little chance of relating such large squares with the selling fixtures. The front of this shop is shown on page 31.



BELOW LEFT In this Waitrose supermarket at Hounslow, owned by the John Lewis Partnership, the installations are in the 'contemporary' style. But though there are many pleasant individual features the way in which they are mixed together and the use of different types of lettering does not give a co-ordinated result, an instance being the exaggerated script on the fascia.

BELOW Of all the shopfitting equipment specially produced for self service, the refrigeration cabinets show the greatest advance on conventional fittings. Open or closed cabinets are available in one or more units in a variety of styles. These cabinets at Waitrose, Hounslow, are by British Hussman.



'Sweda', are two notable examples which reveal a direct and simple approach to design. Other ways have been evolved to reduce customer delays and one manufacturer has applied time and motion study methods to produce an ingenious counter design which, it is claimed, eliminates 50 per cent of the normal queuing time. Moving belts are now being introduced to carry this development to its logical conclusion. Using the latest equipment a single check-out counter can, in busy periods, deal with over 100 customers per hour.

Many new problems concerning pre-packaging, refrigeration, stock replenishment, etc have to be solved behind the scenes in a space equivalent to one quarter of the site. In supermarkets shelving fixtures are usually designed to allow the goods to be fed in from the back on to troughs running the depth of the fixtures so that an item is automatically replaced when it is removed. These demands have necessitated the installation of considerable equipment such as freight lifts, moving belts, refrigeration plant, etc, and in the near future electrical computers for automatic stock control. Some supermarkets have considerable customer amenities, such as coffee bars, pram parks, and children's play pens. These are the nearest English

equivalent to their American counterparts.

Very few large multiple firms have fittings specially designed for them, and consequently there is a tendency for the shops of different firms to look very much alike. Of the larger shops the most notable are those of the Fine Fare organisation whose premises have an architectural quality giving co-ordination of planning, lighting, colour, texture and display, producing a pleasant atmosphere for shopping. The new Sainsbury's shops are excellent examples of design detailing, but are somewhat colourless and lacking in appeal when compared with their earlier conventional shops. This is a pity, since their packing and display promotion is of a high order, Leonard Beaumont being retained as their packaging design consultant.

Of the smaller shops those of Taylor Bros, a provision firm with branches in the London area are particularly successful. Here, the work of the architects, Austin Smith and Partners, shows that good individual shops with similar house style characteristics can be produced at a cost that appears favourable when compared with the mass produced type of installation.

Very few firms, it seems, have thought it necessary to employ outside consultants and architects, yet the

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impersonal character in many shops which results from the installation of standard shopfitting equipment could be avoided if full use were made of trained staff designers and outside consultants, or a combination of both. The CoID's Record of Designers could supply advice.

A further aspect to be considered after the provision of a pleasant architectural shell and fittings is the transformation by the manager and his assistants, who often fill and cram their shop with merchandise so that the original character is no longer recognisable. This process is by no means confined to self service shops, but it is particularly noticeable in this form of trading. While it is of course necessary to display all the goods that are for sale, the effect of the shop as a whole will depend largely on the way the displays are arranged, and the importance of having personnel trained to carry out this work is becoming increasingly evident.



This fixture at Premier's supermarket, Kingston, is known as a 'Super-mat'. Goods are fed in from behind into adjustable sloping grooves. The angle at which the goods are seen and the method by which they slide down the grooves are additional factors to be taken into consideration by the packaging designer. The close up of the 'Super-mat' below shows very clearly the method of price ticketing that is universal to almost all self service shops.



The skilled co-ordination of the many visual elements that go to make a successful house style of presentation and identification is also necessary, particularly when a shop is part of a chain, and many sales will continue to be lost to those competitors who have recognised its value. This subject was discussed in detail in a special issue of DESIGN on 'House Style' (November 1958) which suggested that any small or large organisation that attempts to ignore this form of visual identification is failing to capitalise on an essential feature of man psychology and salesmanship.

#### Modern approach to packaging

The influence of self service shops on food packaging design is considerable and deserves fuller consideration in a separate article. Many leading packaging designers are aware of the changing requirements, but few manufacturers appear to have faced up to the new problems involved. The pack that is designed for self service is equally satisfactory in traditional shops though the reverse is by no means true. The package must be more than a serviceable container stamped with the branded name and its contents. It has to be its own salesman and must compete with its immediate neighbour. It should be capable of being stored easily and must be immediately recognisable from every surface angle. Since many manufacturers are reluctant to print the retail price of their wares due to fluctuating prices, a blank space suitable for the retailer's price mark is desirable. The use of polythene and acetate film for packing fresh meat, fish, vegetables and other perishable foods, has made rapid strides but is still in its infancy and brings in its wake a number of complex factors of printing and sealing.

In an industry which is growing and changing so rapidly any forecast of future trends is liable to be misleading. It is possible, however, to summarise the present stage of development and to assess some of the advantages and shortcomings of the self service system. Clearly the self service shop is now an important and permanent feature of retail food distribution. The stage has been reached of an experimental, clinical, hygienic character. The installation of stock items of shopfitting equipment has created a toothpaste style of presentation that is crowded with merchandise and causing considerable visual indigestion; in fact, it is a recurrence of the jumble of the market place. One self service shop tends to look very much like another and this effect is increased by the fact that many of the goods on sale are the same well known branded products. This has been avoided by those firms whose managements are following a conscious design policy co-ordinating shopfitting, lettering, packaging, display, sales promotion and staff training. To the unconverted this may not appear important at this stage when increased sales are still to be had. However, once saturation point has been reached, and competition becomes a decisive factor, those firms who are building their reputation with an individual house style, together with sound merchandise, are likely to prove the wisdom of their foresight.

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ABOVE and RIGHT The Sainsbury's supermarket at Hemel Hempstead is notable for its use of the illuminated corrugated vinyl plastics ceiling. A combination of fluorescent and tungsten lighting has been used to suit the displays of fresh meat and bacon.

RIGHT Sainsbury's is one of the few firms that has its own special fittings which are distinctive for their design, construction and finish. The effect of too many shelves in this branch at Lewisham has been avoided by having all fixtures slightly below eye level.

The National Cash Register Co's machine, BELOW, has a traditional upright character and is extremely efficient, having a feather touch keyboard. The Swedish 'Sweda', BELOW RIGHT is also an upright model but can be inserted at an angle in a special check-out counter by the same firm, giving the assistant maximum freedom for two-handed operation. The cash drawer is separately placed under the counter at right angles to the machine. The battery of 'Sweda' check-out counters, RIGHT, is at the Landport Drapery Bazaar, Portsmouth.



Photographs of Premier supermarket and Richard Mattes (page 33), Mac Fisheries and the London Co-operative (page 34) and Premier supermarket (page 36) are by Sam Lambert.

# COMPROMISE in car bodies

E. G. M. WILKES

*By comparing three new British mass produced cars with two of similar specification from the Continent, the author concludes that large sections of the British motor industry are still not giving sufficient thought to body design. Imaginative developments are to be found in small cars which are beginning to rival the more established Continental models.*

**1 and 2 Austin 'A 55'** This car seems to be an attempt to meet the taste of a more conservative market, and the fashionable elements that have been applied lack conviction. The untidy looking rear end, 2, results from a lack of attention to the relationship of joint lines, colour change and lamp housings.



**3 and 4 Wolseley '1500'** Conservatism has again dominated the appearance of this car which incorporates many features that are pre-war in character. This is particularly noticeable in the front grille, the decorative symbol above the front wheel arch and in the facia panel and steering wheel, 4.





OF THE NEW CARS announced earlier this year, the Vauxhall 'Victor', Austin 'A55', and Wolseley '1500' can be grouped together as catering for the same market. All are 1½-litre, 4-5 seater saloons capable of 75 - 80 mph, and with a petrol consumption of about 35 mpg. In their standard forms the Vauxhall sells at £728, the Wolseley at £759, and the Austin at £808 - an overall price difference of £80. Because they are intended for big production they are of particular interest since they represent the policy of a large section of the British motor industry.

That this policy has remained unchanged during the past 10 years and reveals the same shortcomings, is a disappointment after indications in the Press of a more imaginative outlook in the industry. This is not to suggest that the cars have no good features; in fact, as compromises between size, performance, running costs, and quality of engineering and finish they are exceptionally good value. The ability of the English car to excel in these respects is continually being put forward by manufacturers and the Press. Yet it took a pronounced falling-off of sales last year to bring home the fact that good appearance is also a necessary element in sales appeal.

#### Modern trends misunderstood



How has the industry responded to this need? In the case of the Austin and Wolseley a timid application of a few earlier American styling motifs - the particular type of colour break on the wings for example - is the only indication of any new concern to improve standards of body design. But, like the chromium motifs terminating the colour panels above the front wheels, these decorative details indicate a sad lack of understanding of modern design or styling trends. In the case of the Wolseley the characteristics of the radiator grille, the rounded roof contours, the high window sill line, the burr walnut cappings, the steering wheel, the complete facia with its little glove boxes and so on, are all in the idiom of the nineteen thirties. So positive is this association with the past that it is obviously part of the policy of compromise. The Austin shows a more serious attempt to create a modern appearance but there is so little character in the basic body form, and the applied trimmings are again so out of tune with the modern idiom, that the result is disappointing. Wrong styling interpretation is shown in the Austin headlamp cowls. To a stylist the purpose of such a cowl is to form an extension to the wing to give a built-in appearance to the lamp. For this reason it must be flush with the wing and even painted the wing colour. But this point has been missed and the Austin cowl is part of a conventional applied lamp bezel that is not even flush with the top of the wing. All that appears to matter is that the car has cowled headlamps.

#### Individuality versus compromise

Whereas the Austin enters the styling race timidly, the Vauxhall blusters in wholeheartedly; but only as a copyist and thus somewhat behind the times - an unforgivable sin when dealing in fashion. Certainly

## Compromise in car bodies

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**5 and 6 Vauxhall 'Victor'** Although a wholehearted attempt to introduce American styling fashions has been made, the manner in which these have been interpreted is poor, as can be seen in the awkward changes of section along the side and wings, 5.

most Americans would be conscious of this. Although the wrap-round screen and forward leaning pillars are new to this country they were introduced in the USA at the end of 1953.

All three cars show a lack of unity about their shapes and features that is a direct result of compromise and copying. There are few American cars that could compete with such dissimilar wing sections and wing mouldings, or such differing treatments around the wheel apertures, as are evident on the Vauxhall.

People are becoming more selective in their choice of a car and, within a given price range, they tend to want the accent on performance, or on carrying capacity, or on smartness, or low running costs, and so on, rather than be content with 'average' qualities. The Continental manufacturers have shown greater interest in catering for these particular preferences which have necessitated a more adventurous design policy. In fact the appeal of many Continental cars that have no claim to good looks is to be found in the individuality born of unorthodoxy, and the ability to excel in a certain direction. A car with conservative mechanical design, compromise performance, and a compromise appearance will be hard-put to arouse a similar degree of enthusiasm, even though, on paper, it presents better value.

Good appearance is the one thing that could off-set such conventional design, and restore British prestige in world markets. That an attractive interpretation of the current car form is possible without recourse to the

more obvious gimmicks of the American stylist can be seen in the Peugeot '403' from France and Volvo 'Amazon' from Sweden. Here the forms are handled with knowledge and conviction but at the same time have a restraint which should appeal to those who look for a more conservative elegance in a car which still has a smart modern appearance.

### Refreshing approach in small cars

In a completely different class is the new 'Frisky' - a small car to be manufactured by the engineering firm of Henry Meadows Ltd. The mechanical design is by R. Flower and G. Bedson and the body design by Giovanni Michelotti of Italy. The first prototypes were also built in Italy by the coachbuilding firm of Vignale. The fact that the manufacturer had to go abroad for the bodywork is unfortunate for English prestige. But with so little evidence of advanced design ability from English coachbuilders the decision is understandable.

A cruising speed of 50 mph with a petrol consumption of 70 mpg is claimed, and the car will carry 2 adults and 3 children. The engine is a 2-cylinder, 2-stroke Villiers mounted at the rear of a tubular steel chassis. The front suspension is independent using rubber in torsion. Selling price will be under £400.

Here is a competent and imaginative design handled by a team who obviously pull together and in the right direction. In common with the 'Berkeley' (DESIGN February page 27) introduced earlier, it represents a refreshing change of outlook in British small cars.

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7 Volvo 'Amazon' and 8 Peugeot '403' There are no American styling features but both cars retain a smart modern look. In each case the designers have been content to relate the appearance closely to the basic design and concentrate on sensitive handling of details.

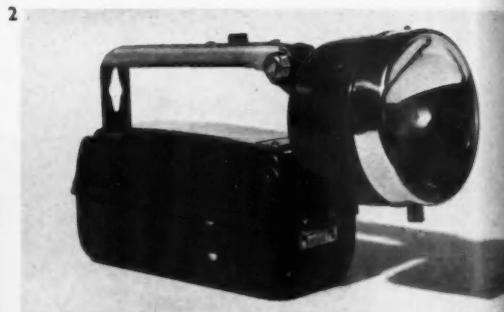


9, 10 and 11 Meadows 'Frisky'. The elegant appearance results from a clear understanding of scale. The colour treatment reduces the car's apparent height and there is a clear unity in the treatment of details. The gull wing doors, however, may need to open further to allow easy entry.

# Review of current design

*A selection of items recently accepted for inclusion in 'Design Review', the CoID's photographic and sample record of current well designed British goods. 'Design Review' forms an essential part of The Design Centre, 28 Haymarket, SW1, which is open on weekdays from 9.30 am - 5.30 pm.*

All retail prices quoted are approximate and include purchase tax where applicable



1 Taps made of brass with a polished chromium plated finish. DESIGNER S. H. Clark. MAKER Sanbra Ltd. £3 (right); £4 6s 6d (left).

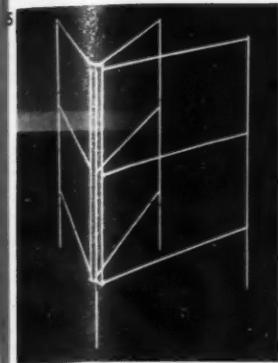
2 Handlamp made of steel; the body is stove enamelled in red, and the angle of the lamp is adjustable. MAKER The Ever Ready Co. (Great Britain) Ltd. £1 3s 10d.

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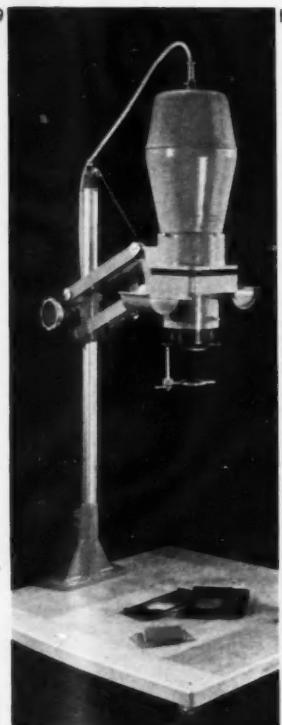
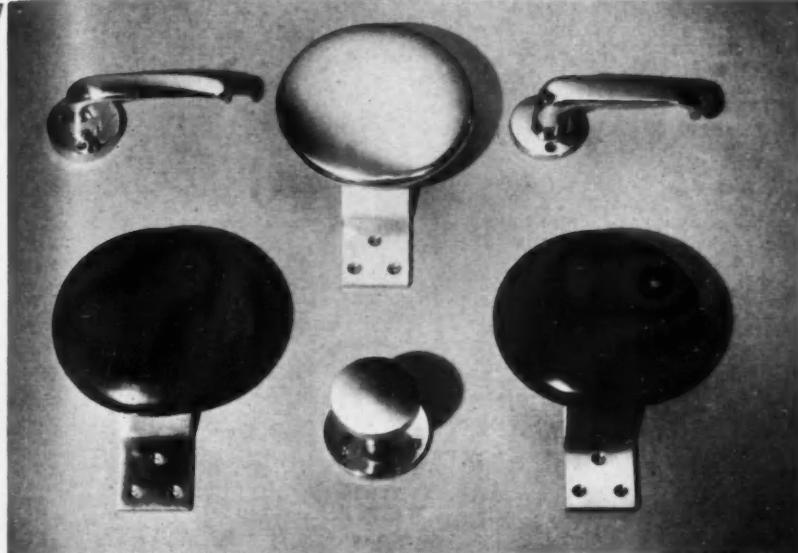
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5 Clothes airer; the steel framework is covered in red, white or green plastics. DESIGNER R. N. Keeble. MAKER Rudic Products Ltd. £1 12s 6d.

6 Trolley with mild steel rod frame stove enamelled black; the shelves are covered with 'Formica' and the top rails are in brass. DESIGNER John Bray. MAKER Ferricane Furniture. £20 12s.



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7 Door furniture: a selection of new designs in various materials, including wood, bronze, brass, anodised aluminium and chromium plate. MAKER James Gibbons Ltd. Prices from maker.

8 Chest of drawers, part of a range of bedroom furniture in walnut and walnut veneers with a natural satin lacquer finish. MAKER A. H. McIntosh Ltd. £20 10s.

9 Vertical enlarger with hand focusing for negatives up to  $3\frac{1}{2} \times 2\frac{1}{2}$  inches, and a double optical condenser unit incorporating a heat filter. The column is chromium plated, and the other components have a grey stove enamel finish. MAKER Micro Precision Products Ltd. £35, including negative carrier and condenser; lens and other accessories extra.

10 'Cockerels', a woven rayon and cotton fabric. In a previous illustration (DESIGN April page 41) the reverse of this fabric was shown in colour. DESIGNER Hans Tisdall. MAKER Edinburgh Weavers Ltd. £2 19s 3d per yard.

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# LETHABY

*architect, designer and teacher*

*The centenary of the birth of William Richard Lethaby (1857-1931) is to be marked by a commemorative exhibition at the LCC Central School of Arts and Crafts from November 27-December 13. In the following article, the author, whose series of lectures on Lethaby were completed last year at the Royal College of Art, describes how Lethaby's teachings foreshadowed the Modern Movement in architecture and industrial design.*

BASIL WARD

LETHABY'S FIRST CENTENNIAL ANNIVERSARY should not be marked simply by public gestures of piety; these would do little to enhance our memory of him as an architect, an industrial designer, and a teacher of note, and from our knowledge of his self-effacing nature we may be sure he would shrink from any suggestion of such.

Lethaby was one of the few men of modern times to approach his work experimentally, speculatively; and the pronounced views in his important, if somewhat didactic books, 'Architecture' and 'Form in Civilisation', still make a challenge. His general philosophic views are, in fact, more important than his work in architecture and design and it is these we should think about at his centenary.

In what we already know of Lethaby there is an interesting paradox. He is still claimed a champion of the Arts and Crafts principle. Indeed he was a founder in 1884 of the Art Workers Guild, and in 1887 of the Arts and Crafts Exhibition Society; though if we are to think of those movements as part of Lethaby's background, we should be reminded that their aims in those days were revolutionary, and we must take care not to relate them to the present-day somewhat finical, self-conscious and backward-glancing concept of arts and crafts. Nevertheless, Lethaby's own design work, though intended as a breakaway from accepted convention and, to use his words, from the "false smiles of the sham styles", had the flavour of applied art and contained derivations from the medievalism practised or preached by Ruskin, Morris, Philip Webb and others of the time.

Looked at now, his designs seem peculiarly dated, archaic and though charming, limited in appeal. They had little of the primitiveness of feeling and passionate regard for the structural such as is shown in the work of Gaudi, Van de Velde, Louis Sullivan, nor the originality and individualistic, vigorous formalism of Mackintosh, Frank Lloyd Wright, Voysey. Further-

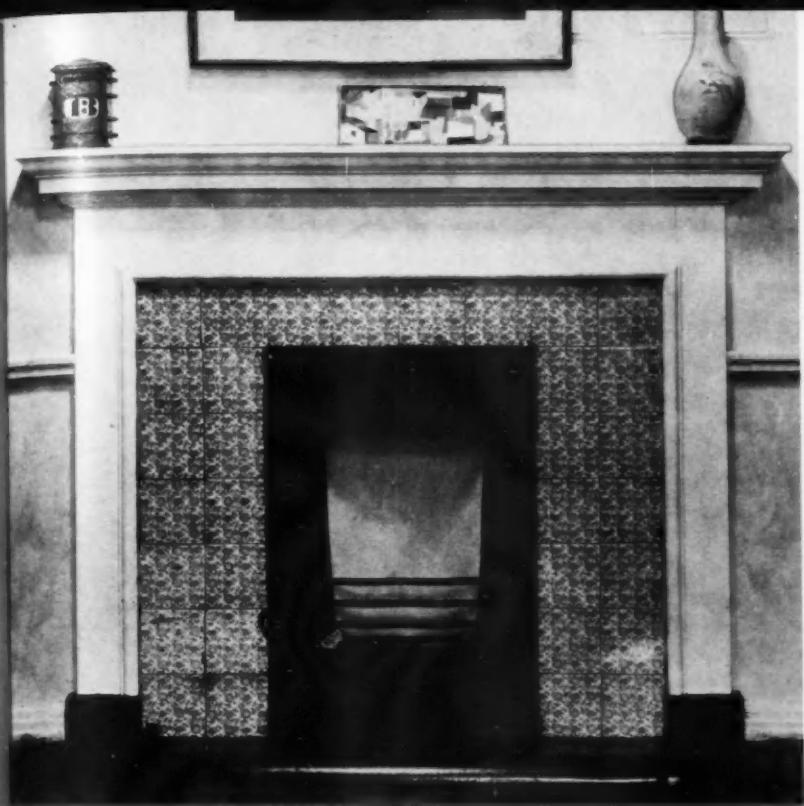
more, they showed none of the influences of a particularly important movement of his time, *Art Nouveau*. (It is interesting to know that Lethaby referred to *Art Nouveau* as "the squirm"). But – here is the paradox – can this man of the Arts and Crafts be he who was so active in helping to found in 1915 the Design and Industries Association with its keynote 'fitness for purpose'; who wrote in 1907: "I were again learning to be a modern architect, I eschew taste and design and all that stuff and lean engineering with plenty of mathematics and have building experience; hardness, facts, experiments – that should be architecture not taste . . . . ?"

#### **Houses – machines to live in?**

Can he be the man who showed prescience about standardisation and modular design in saying: "... we need a true science of architecture . . . which should investigate the unit cell and all the possibilities of combination"; and who wrote in 1920: "The house of the future will be designed as a ship is designed, as an organism which has to function in all its parts"? All these remarks of his are on architecture but we can take it that he thought in similar terms about industrial design. "Designing", he said, "is not abstract power exercised by a genius. It is simply the arranging how work shall be done".

Lethaby came to maturity during the *fin de siècle* and the first decade of the present century. His story is that of the mid-century artisan's son with a talent for art. He was born in 1857. "I quite early found (Ruskin) for myself" – "quite early" being the impressionable age of adolescence; and such discovery of the master would be typical of his social class and period. Lethaby, whose father was a picture framer and gilder, came to London from Barnstaple when he was 22 and eventually worked alongside William Morris and with many architects and designers of integrity and reputation of the time. Philip Webb was his closest friend and

*The bust of Lethaby, above, by Gilbert Bayes is in the hall of the Art Workers Guild*



2



2 Fireplace and surround at the Central School of Arts and Crafts designed about 1908.



4



3 Altar piece at Holy Trinity church, Bothen Hampton, with painted gesso panel by Lethaby.

4 Ladder back chair designed for the principal's room at the Central School, about 1908.

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influenced him greatly. He was an early and active Fabian and debated socialism with Bernard Shaw. Although he joined the respectable professional ranks in the great new mass of middle class he consciously avoided certain conventional honours offered him for professional distinction.

#### Teaching – a new approach in two schools

In 1896 he was made the first principal (jointly with George Frampton) of the LCC Central School of Arts and Crafts, and four years later he was persuaded to become first professor of design at the Royal College of Art. ("I feel a call like Livingstone to darkest Africa. They'll probably eat me"). He kept the two appointments during the same time for a considerable period, taking only a minute salary from the Central. In both schools his working principle, a new one for the time, was that "design is best performed by those familiar with the material and process, and that (educational) movement should be from the particular to the general". He employed as instructors not so much men with certificates for pedagogy as men qualified by commercial experience in practical trades and crafts, even a registered plumber.

Although he is best known as an architect, writer and teacher, there was hardly a field of industrial design that he did not enter. It is difficult to make a quantitative estimate of his output but it is certain that he did work in lead, copper, silver and enamel, glass and wood. He worked closely with manufacturers. He designed cast iron fireplaces, grates and fire dogs; brass candlesticks, gas brackets and candelabra; glass ware, leatherwork, needlework, wallpaper, and, quite extensively, furniture. He designed interiors, including it is believed, complete furnishings, such as at Hoy, Orkney. He was involved in the graphic arts and Noel Rooke has said that he influenced and encouraged Edward Johnston.

His designs may be thought eclectic and derivative, but his writing and teaching have a universal and timeless quality such as marks the ideas of the great. His "humility and utter want of self-seeking", however, hardly belong to the attributes conventionally ascribed to greatness in men thrown up in popular history or thrust forward by modern-day publicity.

#### Limitations of early training

Allusions have been made to the "sweep and intensity" of Lethaby's mind and to the fact that the range of his studies and work was immense in subject and time. A glance at the bibliography compiled by the RIBA library will confirm this as true. His capacity for gaining knowledge was remarkable even for one brought up under the nineteenth century discipline of attainment of knowledge for its own sake as an essential to progress.

However, there was a branch of knowledge which was closed to him and he knew it. When we appreciate this the paradox referred to earlier is explained. He realised that he was not equipped to deal with the new problems arising out of developments in building engineering and the new demands of expanding industrial production. He must have concluded that this was because of the limitations put upon him by the historical accident of his time of birth and training and because he was caught up in the English tradition of historicism and in the influence of Morris and the Arts and Crafts.

There is evidence of visits paid to Germany between 1900 and 1914, and Germany at that time was undoubtedly the centre of new movements in architecture and industrial design; and it is clear that he was impressed. "... it has been a wasteful system", he said, referring to architectural education in Britain, "too regardless of results or too regardful of wrong results. It is absurd for instance that the writer should have been allowed to study cathedrals from Kirkwall to Rome and from Quimper to Constantinople; and it would be far better to have an equivalent knowledge of steel and concrete construction."

#### Recognition of changing needs

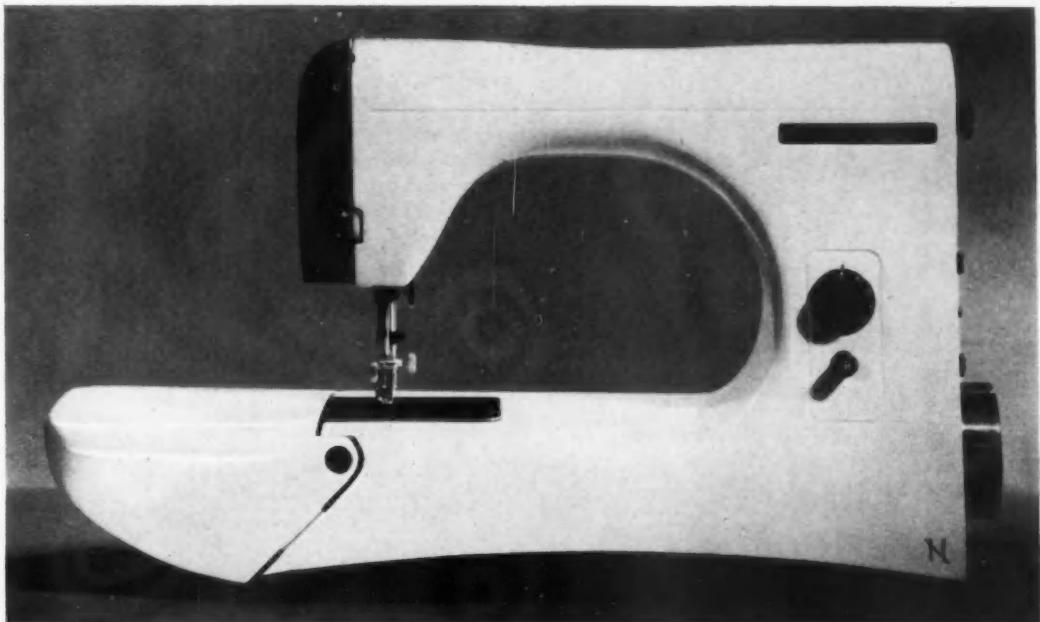
In the first two or three years of the new century he saw that "taste and design and all that stuff" were not enough and that he needed knowledge of "engineering . . . mathematics and hard building experience". He recognised the coming of the new industrial and urbanised society with its new needs and new means. With an honesty and integrity typical of him and rare in modern times he gave up practice – his last major work was the church in Herefordshire – and devoted his time to teaching that it was "a time of beginning as well as of making an end", that "behind is custom, as in front is adventure", that "no art that is only one man deep is worth much; it should be a thousand men deep. We cannot forget our historical knowledge, nor would we if we might. The important question is, can it be organised and directed or must we continue to be betrayed by it? The only agreement . . . is agreement on a scientific basis, on an endeavour after perfect structural efficiency."

Although Lethaby was many-sided in his activities he was not all things to all men. In maturity he showed marked single mindedness in a time of shifting standards, a clear understanding of the central problems of architecture and industrial design in the new social economy, and a prescience equal to that of the men of the Werkbund and Bauhaus, of Le Corbusier or any like prophet in the Western world. He saw the weak points in the synthesis of our industrialised society – specialisation and the division between art and science – and he was persistent in saying that science was not the enemy of art. He was at pains to support good design in industry and to persuade his handicraft friends that machines and industrial techniques were as much tools to be mastered and used as were the hand tools of the craftsman.

# Overseas Review

## Sewing machines - a creative approach to design

Italy



*The production of a new sewing machine by the Italian firm of Vittorio Necchi is an event of considerable importance to both designers and housewives throughout the world. The new 'Mirella' model, above, which will shortly be available, focusses attention afresh on the remarkable reputation of this firm whose design leadership is comparable with that of Olivetti in office machines and equipment. The following article, which is based partly on a paper given at the CoID's International Design Congress last year by Professor Pietro Sillano, manager of Necchi's applied research department, describes the background to this achievement and analyses the development of Necchi machines since the traditional pre-war models.*

THE SEWING MACHINE is one of the select band of refinable engineering products at which Italian designers excel. This is because the Italians seem to combine the essential qualities of engineer and artist and consider the appearance of their products not as something to be fashioned in afterthought or pursued in abstract isolation but as something fundamental to the complex art of industrial design.

The story of Necchi sewing machines thus echoes the stories of Olivetti typewriters, 'Vespa' and 'Lambretta' scooters and Farina sports cars - right up to the last chapter describing the potent influence of Italian

thought on world trends in design. The company, now approaching its fortieth year, has three-quarters of its 4,500 employees at Pavia making sewing machines, as well as tables and cabinets to go with them. Almost a generation ago, in 1934, it replaced the traditional round shaped arm with a square one, designed to fit the internal mechanisms more closely; and it has made this kind of arm the starting point of its pioneer developments since then. The idea has been adopted in recent years by competitors all over the world.

In its pioneering work the Necchi company has had its design and sales departments working closely together to devise machines of good outline, colour and appearance, machines that are easy to operate and maintain, machines that possess the stability of old cast-iron models while being light and portable, and machines that include the latest accessory devices and yet keep as nearly as possible to the proved mechanisms of existing models.

The firm's approach to the design of a new machine was described in detail by Professor Sillano at the CoID's recent Design Congress. He explained how the desired features of each new design are first outlined in high level discussions. Then each mechanism is designed, and its construction supervised, by an individual working in a small group within the design

department. One of these groups plans the use of space within the machine to gain the best possible performance, and builds a skeleton working model in which each mechanism can be tested as part of the working whole.

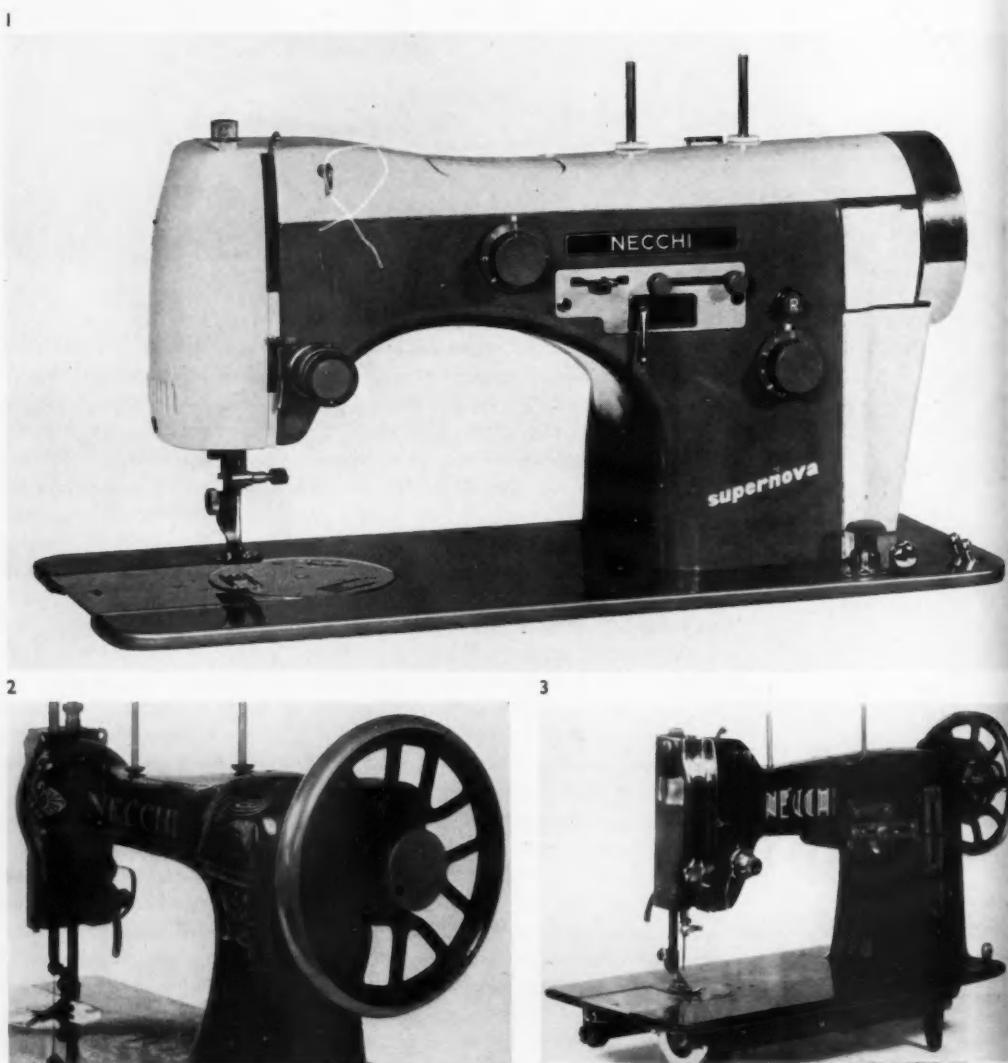
At this early stage in the development programme an industrial designer, usually from outside the company, enters the picture, bringing his experience of creative work to bear on the problem and helping other members of the team to devise a final form of machine which will meet the users' needs. He is not there only for an aesthetic purpose — to shape an attractive case round the approved skeleton — though this is obviously important. He must consider where to place levers and when to replace them by plastics knobs, whether to build in the bobbin winder, what sort of needle plate to include, how to shape and where to place the balance wheel. The final design must be a compound of his ideas and those of his technical colleagues, even though he is probably a trained engineer himself; and the strength of his

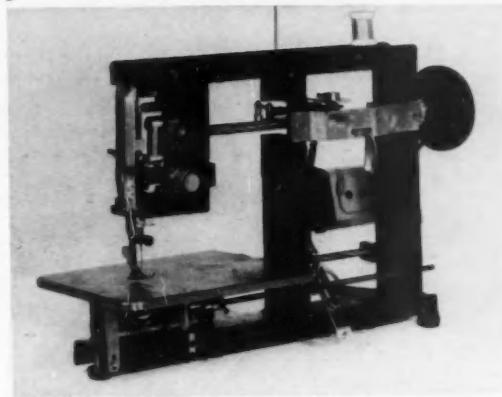
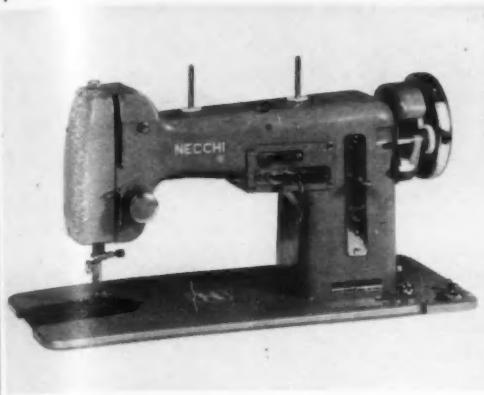
influence almost certainly varies from one part of the machine to another.

The finished model is discussed at a high level; relation to the original requirements. All the interest departments contribute, notably the service department, which tests the machine thoroughly in the laboratories and in customers' workshops, before the company tools up for production. This department performs an important function in the development of Necchi products. It sends out inspectors to check the behaviour of machines in use and collects customer remarks, complaints and suggestions, noting how every aspect of the performance comes up to expectations. This detailed information provides a valuable aid to future development work.

Necchi machines are now selling throughout the world, and nowhere have they had more success than in the USA which, with many competent machines of its own, has conceded the Italian firm five per cent of the home market in the first seven years of competition.

JOHN GRAY





## SUPERNOVA

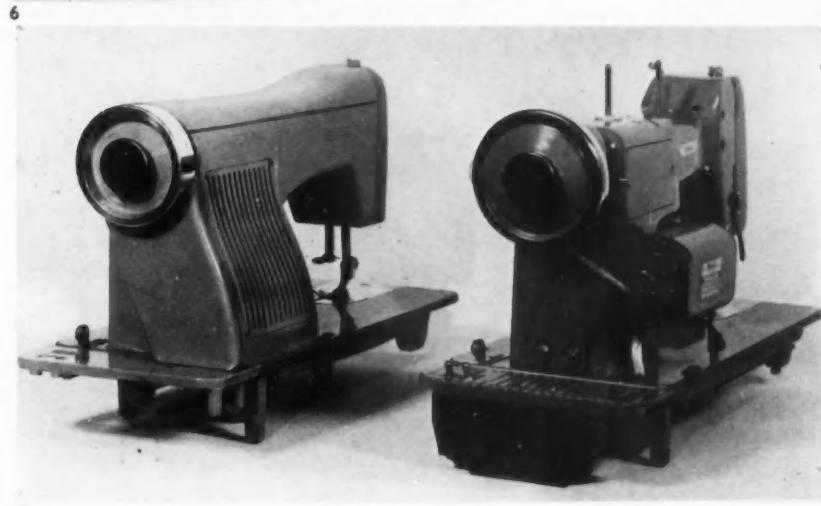
The 'Supernova', 1, is the current Necchi machine which will eventually be supplemented by the new 'Mirella', page 50. It can be supplied either with the usual flat bed for ordinary work or with a free arm for work on sleeves and trousers; the free arm can be converted into a flat bed by the addition of a sliding plate.

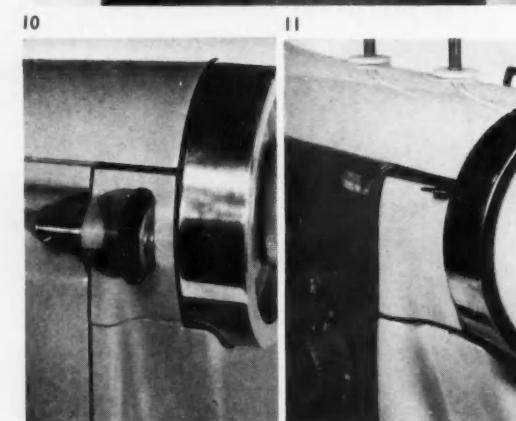
The industrial designer, Marcello Nizzoli, was called in and helped the company produce a casing of remarkably smooth and graceful lines, from which only the needle apparatus, spools, control knobs and levers protrude. The way in which it evolved can be seen in 2, 3 and 4. The immediate pre-war design, 3, was revolutionary in its day but in the cold light of history shows much more affinity with the traditional round-arm model, 2, than with the early post-war 'Mira' model, 4, which was a remarkable achievement within the convention of iron casting. A quick comparison between 4 and the 'Supernova', 1, shows how much the latter has gained from the enclosure of external mechanisms by plates, the grouping of controls and the building-in of the balance wheel.

The skeleton of a Necchi machine, 5, is the result of close teamwork, and not till the design has reached something like this form is the specialist on appearance called in. In the 'Supernova' the main arm is largely composed of removable plates, which are assembled to the main arch-shaped casting in such a way as to house many mechanisms that have traditionally remained uncovered, partly because they cannot easily be incorporated in one solid casting and partly for ease of access — which is preserved in this model. The machine is both easy to manufacture and easy to dismantle for repair. The underside of the arch is coloured dove grey, the rest is ivory.

Necchi originally hoped to make a slim arm, incorporating the electric motor at the back end, beneath the balance wheel. However, it was found that the most practical position for the motor was on the side of the arm away from the operator and the designers experimented with a casing, 6, which would house the motor and the belt drive and give ventilation through a grille without spoiling the external lines. In the final version, 7, the grille has been removed to the back end of the arm and the side is punctured only by a single row of small vent holes.

The designers have positioned the controls carefully; all





*'Supernova' continued*

are readily accessible to the operator and as many as possible are placed in one group to the right of the arch and above her right hand, 8. There is a non-automatic variety and a so-called 'plain' model, 9, which incorporates none of the 'zig-zag' devices for fancy sewing and is freer from control knobs than the others.

Two well known external features of the sewing machine – the bobbin winder and the balance wheel – have been built into the arm. In the early prototype for the 'Supernova', the bobbin winder was merely recessed so as to be less obtrusive, 10; but this proved less satisfactory than the final solution, 11, which hid the winder completely behind a hinged plate. The traditional spoked balance wheel has been reduced in size, made solid and built into the arm so that it continues the circular line of the top part while running almost flush with the detachable case of the motor and drive.

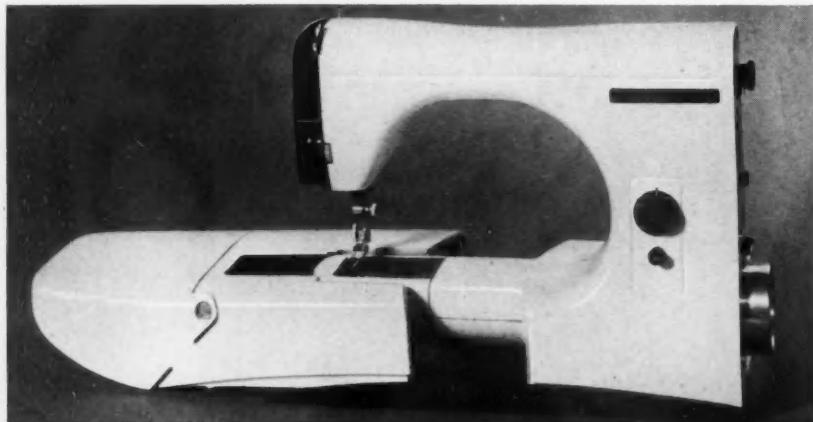
Among the many interesting technical features of the 'Supernova' is the circular needle plate, 12, which greatly eases the task of adapting the machine from one type of work to another.

12



## MIRELLA

13



Marcello Nizzoli was again consulted in the design of the 'Mirella' the latest Necchi model. It is a plain and portable machine with either a flat bed, page 47, or a free arm, 13. As in the 'Supernova' the arm encloses the complete mechanism; but it is made, together with the bed, from one

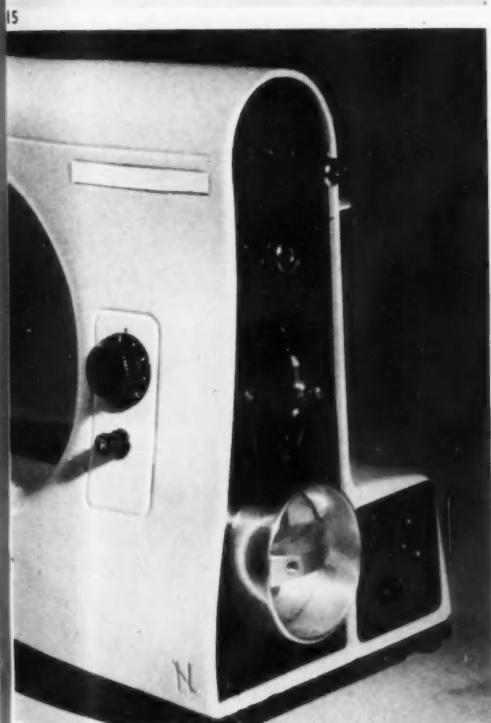
casting and, like all other components, is composed of the lightest possible alloy, so that the machine is a featherweight, even by modern standards. In this casting the motor-cover forms part of the bed, not the arm; and the balance wheel, even further reduced in size, lies alongside it instead of at the top of the arm, so that the user can reach it without lifting her hand.

Almost all protuberances have been concentrated at the front, 14, and back, 15, of the arm, where they are least in the way of the operator, leaving the main casing much simpler in appearance than previous models. The spool pins have been moved forward and on to one side – away from the operator's hands.

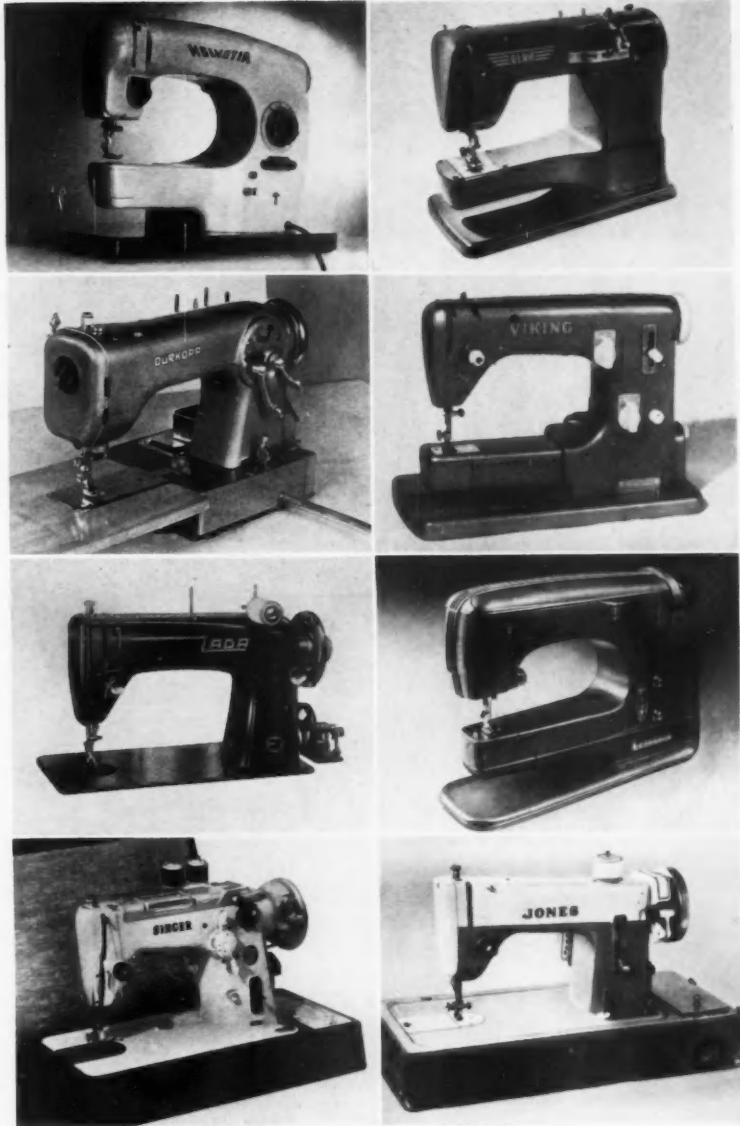
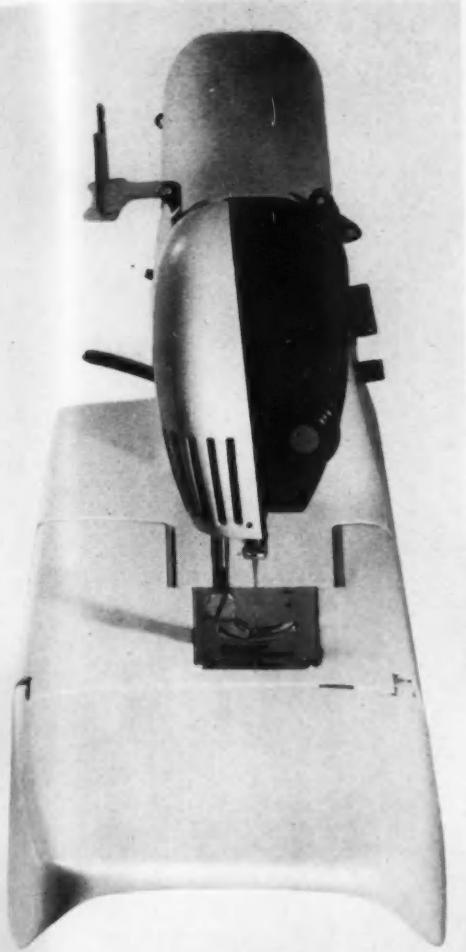
Aesthetically the 'Mirella' is an improvement on the plain 'Supernova' – although in many ways a logical development of it. The concentration of protuberances at the front and back of the arm enables these ends to be coloured black, in contrast with the ivory of the main casting, and the division between the two colours is sharp, straight and vertical. The base plate is also finished black, but the line between it and the ivory bed is curved slightly to balance the inner curve of the arm above.

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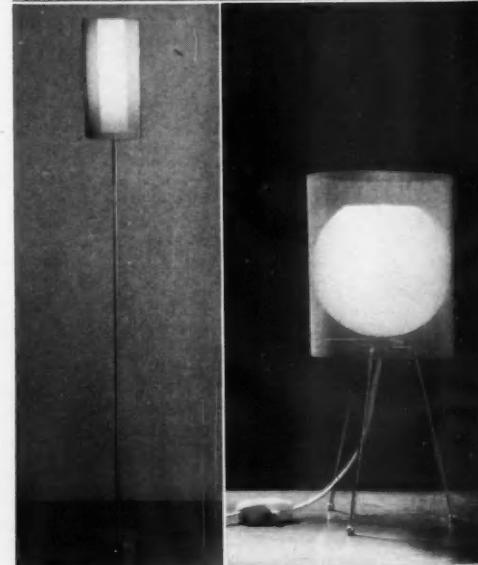
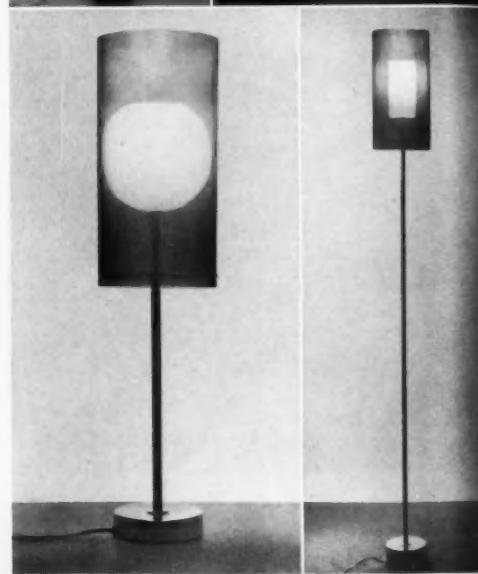
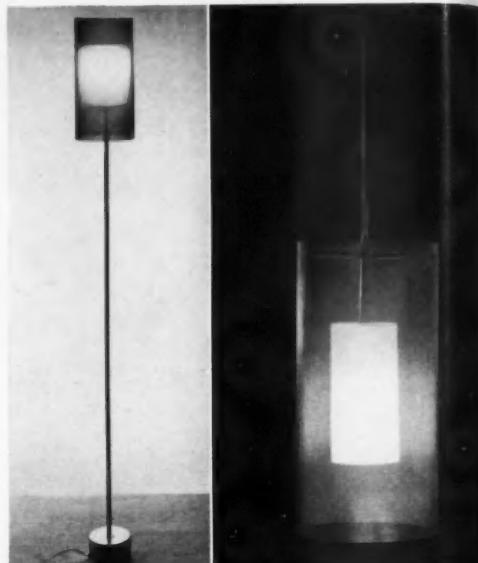
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The trend of sewing machine design is clearly marked in this selection of European models. Without exception they show an emphatic acceptance of the square arm first developed by Necchi. Other trends include the encasing of components, the fitting of detachable plates to the front and sometimes to the top or back of the arm so as to give easier access to the enclosed mechanisms, and the resort to lighter or brighter colours. The free arm machine is steadily gaining in popularity while, with the triumph of electric over hand and treadle machines, manufacturers are making new efforts to integrate motors in their designs, along with the sewing mechanisms. One curious fault persists among almost all companies - an inexplicable urge to daub their names or trade marks over their machines in large and often graceless characters.

1	2
3	4
5	6
7	8

1 Switzerland - 'Helvetia'. 2 Switzerland - 'Elna'. 3 Germany - 'Durkopp'. 4 Sweden - 'Viking'. 5 Czechoslovakia - 'Lada'. 6 Holland - 'Fridor'. 7 Great Britain - 'Singer'. 8 Great Britain - 'Jones'.



### *Versatile lighting fittings*

*Finland*

THESE AUSTERE but colourful lighting fittings are from a new range by the Finnish designer Tapio Wirkkala. Over 50 types of pendant, table and floor standing fittings can be made from various combinations of the few basic components - four opal glass diffusers, two sizes of fine metal gauze shades, and a variety of brass bases, legs and supporting columns.

Unlike the majority of modern fittings which rely on severely geometric shapes, these lamps give a subtle effect when lit, which derives from the relationship in space of transparent and opaque materials. The gauze cylinders suggest a volume of delicately coloured mist surrounding and softening the hard whiteness of the glass diffusers. This illusion is most effective where the gauzes and diffusers are closely related in shape and proportion, but are less successful in the examples using spherical diffusers. The principle of double enclosure recalls the designs of Professor Wilhelm Wagenfeld for the German firm of Peill and Putzler (DESIGN March 1955 page 50).

## Miscellany



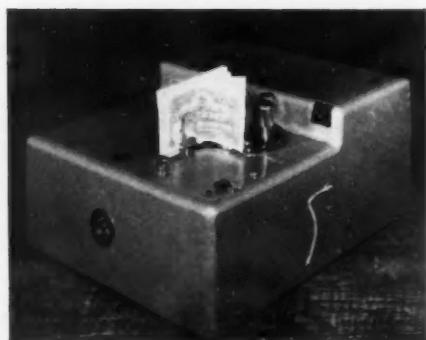
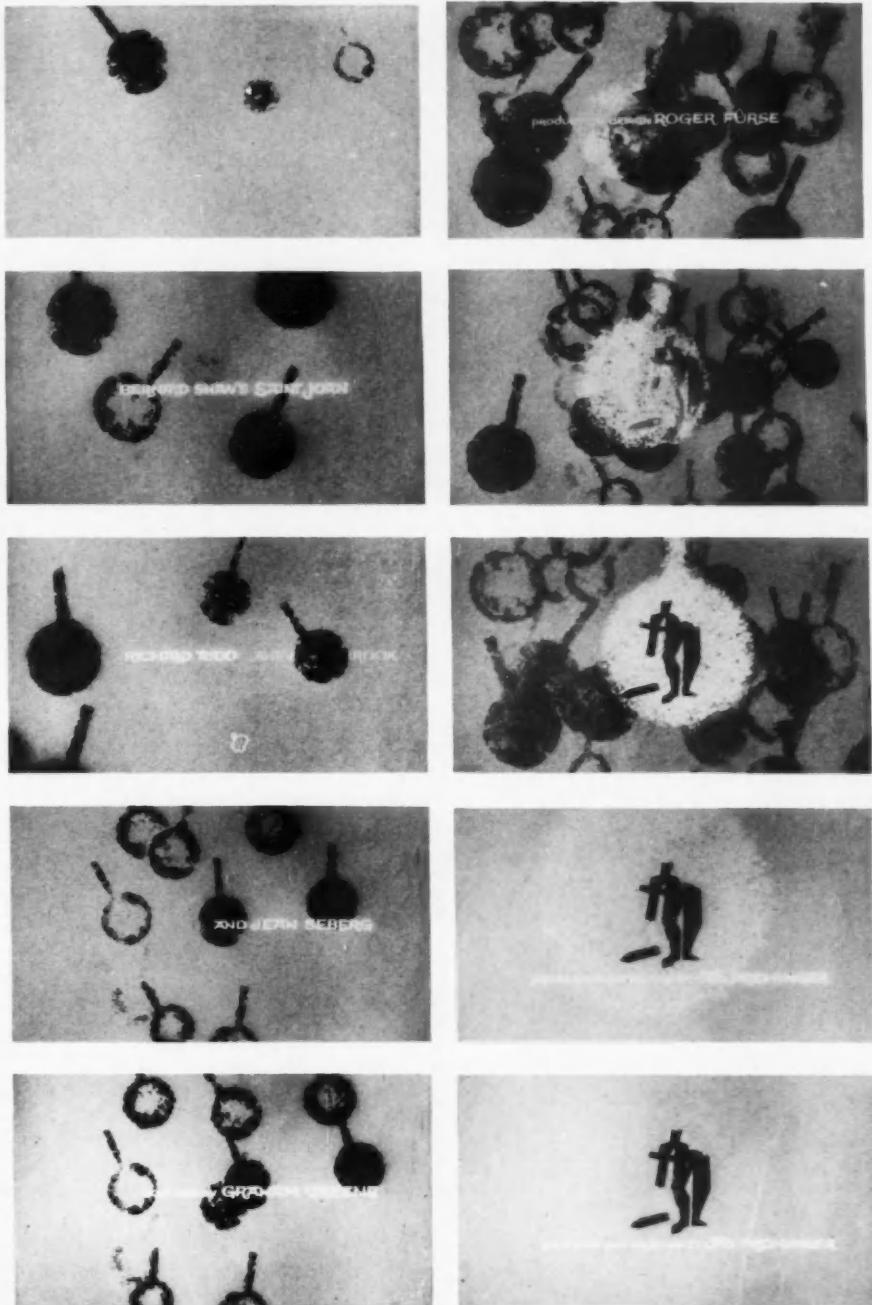
As well as designing the credits, Saul Bass designed this poster for the London premiere at the Leicester Square Theatre.

### Credits for 'St Joan'

The film 'St Joan', directed by Otto Preminger for United Artists, was given its first showing in London last month. Like several other films made by Mr Preminger (DESIGN December 1956 pages 50-1), Saul Bass, the American graphic artist, has designed the credit titles.

The title opens with bell symbols in the form of clappers (tongues of the bell) swinging back and forth across the screen. They swing and advance towards the viewer and fade out as they enlarge to screen-filling size. In the interim, new clappers emerge from the background and swing across the screen. They too advance and grow in size. This process is repeated throughout the title as the credits appear and disappear. However, the general effect is one of the screen filling more and more with the swinging bell symbols until finally a few white clappers are introduced, one of which advances and dominates the entire screen. At the apex of this clapper's forward movement the symbol for the film - a figure holding the broken sword - materialises within it, followed by the final credit.

The entire title is accompanied by music containing a strong bell-sound motif which cues and accents the timing of the swings and appearance of the credits. The transition from one credit to another is handled with very long 'cross-dissolves', so that at a given point the credit that is fading out is of equal visual strength to the one coming in. Thus the calligraphic design of the credits was such that each credit is intended to function well by itself, and at the same time establish a dynamic visual relationship to the one that follows it. The designer's intention was to create a dramatic atmosphere with a distinct ethereal overtone.



### Counting banknotes

This machine, designed and manufactured by Thomas De La Rue & Co Ltd, can count banknotes at the rate of 16 per second. The notes are placed on a spring loaded platform which automatically brings them into contact with a suction point on one of five stems. As the stems rotate the notes are peeled off one by one and a mechanism records the numbers that have been counted. Several of these machines are already being used in banks and at post offices, where counting large quantities of paper money by hand has always been a special problem.

## MISCELLANY

continued from page 53

### College common rooms

Henry Rothschild, a director of Primavera (London) Ltd, has recently refurnished some of the common rooms at Balliol and St Hilda's College, Oxford. Not much money was available and Mr Rothschild worked to a strict budget. He was, however, given a free hand to choose the furniture and colour schemes, and the rooms have an integration that is lacking in many of these common rooms, usually haphazardly furnished by college bursars or student committees. In the Senior Common Room at St Hilda's below, top, some of the former furniture was retained; chairs by H. K. Furniture Ltd, with a deep red upholstery have been added, and the curtains, 'Cornucopia' by Edinburgh Weavers Ltd, are grey, black and white; the ceiling is dark grey, the walls light grey and the paintwork white. The Lindsay Memorial Room at Balliol, bottom, is a students' entertaining room. The chairs and tables are by Ernest Race Ltd and S. Hille & Co Ltd, and the curtains, hand printed by Michael O'Connell, were designed for the room. The floor is covered with Dutch rush matting, and the fabrics for the chair coverings, in yellow, red, orange and turquoise, were specially selected by Mr Rothschild and are not part of the manufacturers' standard range.



### Lettering on traffic signs

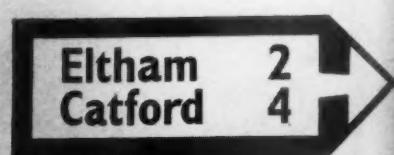
A plea for a wider use of lower case letters rather than capitals, on road signs, station names, bus fronts, etc, was put forward in a lecture given recently by Noel Carrington to the Design and Industries Association. He suggested that the lettering now used by the Ministry of Transport – an alphabet based on sans serif capitals as in the lower examples, above and right – is difficult to read and is especially unsuitable for reading at speed.

He pointed out that whereas the ascenders and descenders of lower case letters give a word an easily recognisable character, block capitals tend to look alike at a distance. To prove this he showed examples, two of which are illustrated here with his own suggested alternatives.

Mr Carrington thought that undue emphasis is still given to route numbers, rather than place names, on many of our road signs. Our present system is based on a code of approved signs which the Ministry of Transport drew up in 1933. An attempt had been made at that time to work out a road classification system, and the report recommended that the route numbers were to be 4½ inches, and the place names 1½ inches in height. These figures have been subsequently modified; they were found to be impracticable since, Mr

Carrington maintained, most drivers, especially in cross-country journeys, memorise the towns they are going through, rather than route numbers. But in many of the approved signs throughout the country the route number is still double the size of the name, and there is no standardisation.

A recent request by the Ministry of Transport for Oxfordshire County Council to remove its experimental road signs which were designed on the principles put forward by Mr Carrington in this lecture, will be discussed in a future issue of DESIGN.



# NEWS

## CoID

### Exhibitions in The Design Centre

Three specialised exhibitions are to be held in The Design Centre during the next few months: 'Design for leisure', an exhibition of garden furniture, garden equipment and hand tools, etc, which closes on July 20; from July 8-August 3 a small display of well designed plastics products has been arranged to coincide with the 'British Plastics Exhibition' at Olympia; and from October 14-November 9 there will be an exhibition of work by members of the SIA textile group.

### Retail courses

The CoID is planning three courses for retailers to be held during the latter part of this year and early 1958.

A residential course on pottery will be held from September 23-27 at the Wedgwood Memorial College, Barlaston, Stoke-on-Trent.

A non-residential course on glass will be held from October 28-November 1 at the Glass Manufacturers' Federation, Portland Place, London, w1.

A residential course on furniture will take place during the first week in February 1958 at Grantley Hall, near Ripon, Yorkshire.

The courses will include lectures on history, design, methods of manufacture and display. Visits to factories will also be arranged. Further details can be obtained from the Retail Officer, CoID, 28 Haymarket, SW1.

### A new conception of the cash desk

This cash desk, designed and manufactured by Conran & Co Ltd, has been installed at Blacks, a new store on Oxford St. It is made of panels of 'Cellobond' polyester resin and glass fibre, which are bonded to a metal frame. The cashier's swivel chair, which is built into the desk, is also made from polyester resin and glass fibre.



### Sites for street furniture

When local authorities are criticised for their choice of street furniture they tend to defend themselves by saying that "the design was approved by the CoID", ignoring the fact that selection and siting are equally as important as design, and that what is appropriate in one context may be incongruous in another. George Williams, formerly secretary of the CoID's street furniture panel, stressed this point in a paper he read recently to the Scottish Association of Public Lighting Engineers. The significance of siting and selection was discussed in an article by Mr Williams in the March issue of DESIGN (pages 46-7).

### REPORTS & CONFERENCES

### Bricks and modules

The Modular Society has recently announced its official acceptance of different module sizes in the British building industry. At present about half the industry uses brickwork as its prime material and the common British brick is not related in any simple way to the 4-inch module which, the society confidently feels, should eventually become the standard in this country. It is recognised that, with the impending interchange of trade with countries in the Common Market, the industry, in order to be competitive, must take into account the widely accepted metric module of 10 cm which is the counterpart of the 4-inch module.

The society claims that the difficulties of altering brick sizes are at present too great to be contemplated and that the industry should therefore continue to relate the sizes of components needed when working with brickwork to the standard brick of 9 by 4½ by 3 inches. In other branches of the industry not directly concerned with brickwork it is claimed that the 4-inch module is steadily gaining ground.

At the press conference to announce this decision suggestions were made for further research into dimensional co-ordination and also perhaps for the establishment of a widely accepted series of preferred dimensions. In a personal statement the society's president, Sir Alfred Bossom, said that he saw no valid objection to the adoption of a brick size of 8 by 4 by 4 inches. He felt that the brick could be forthcoming from industry and would not in any serious way hamper the work of bricklayers. Such a brick would immediately agree with the 4-inch module upon which an increasing number of other prefabricated building components are being based.

### Typography at the Stationery Office

Speaking at a meeting of the Society of Typographic Designers recently, Alan Dodson, head of the layout section of the Stationery Office, discussed the work of HMSO, and the development of its design policy. The layout section was established in its present form in 1947 under Harry Carter, with Sir Francis Meynell as honorary typographical adviser. As well as publishing books, this section deals with parliamentary publications, Victoria & Albert Museum booklets, mathematical and scientific works, agricultural bulletins, etc. Then there is also departmental printing, such as Ministry of Agriculture leaflets, income-tax forms, etc,

which are given away to the public, and stationery and other printed matter for use within Government departments. Mr Dodson stressed that general design policy in HMSO has been to try to break away from the dull official approach, banish the idea that government publications are dry, and put the department's work on the same footing as commercial publications.



### Royal coffee service

HM the Queen presented this coffee pot and hot milk jug to the King and Queen of Denmark on the occasion of her recent visit there. They were designed by Eric G. Clements and made by Wakely & Wheeler Ltd, for Payne & Son Ltd. The engraving, which includes the monograms of the King and Queen of Denmark, was by T. C. F. Wise. The coffee pot has a handle in black ebonised wood and that of the milk jug is in ivory.

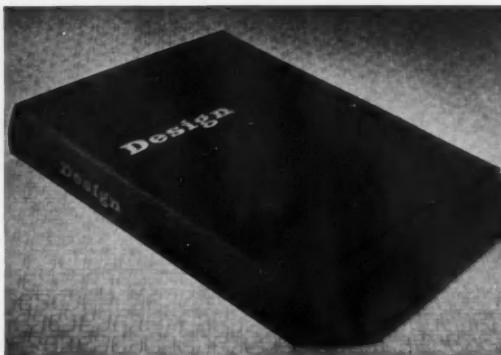
### Schools set new standards

D. H. Pickard, speaking at a residential course organised by The National Association of Retail Furnishers recently, stressed the important part our schools can play in raising design standards. He said "There has been a great development in new schools at all social levels and most of these have been designed and equipped with much that is best in contemporary design. In addition educational programmes are concentrating more on visual art and appreciation. The housewife of tomorrow will demand in her home the good design of her school and will not be satisfied with a simple label 'contemporary'."

### Enterprise in Germany

F. C. Ashford, reader in industrial design (engineering) at the Royal College of Art, commented on "the tremendous feeling of vitality and enterprise abroad in Western Germany today" after his recent visit to the Hanover fair. He was especially impressed by the high standards in the design of capital goods - the larger engineering exhibits such as machine tools, earth moving equipment, processing machines and locomotives, etc - and writes "their excellence rested upon good basic form, careful handling of detail and pleasant colour schemes". In his opinion however, the consumer goods did not reach the high standard of our own products and he felt that "there was not the same loving care devoted to a washing machine or cooker as there was to machinery and instruments". He thought, on the other hand, that once the influence of such

*continued on page 57*



## BINDERS FOR **Design**

are now available to take the new enlarged size of magazine, and are attractively bound in green linen, DESIGN gold blocked on front and spine and lined with black inside the covers

Two metal strips slide through the wire stitches. Each binder will hold 12 copies of DESIGN of any issue from April 1954.

BINDERS FOR DESIGN cost 12s 6d each, or 13s 6d post free from the Business Manager, DESIGN, 28 Haymarket, London SW1.

**THE MARK III  
COLLARO  
TAPE TRANSCRIPTOR**

... Designed on Transcription quality principles for live recording, recording from F.M. Broadcasts, etc., and reproducing pre-recorded tapes. A twin-track model fitted with four heads, the new Collaro Tape Transcriptor runs at 3½, 7½ and 15 inches per second.

Several new modifications are incorporated in the Mark III, including the Pause control and removable switches. Pre-amplifier, incorporating bias oscillator and power pack for the Tape Transcriptor, is now available.



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Makers of Record Changers, Gramophone Units, Pickups, Electric Motors etc.

## NEWS

schools as Ulm was felt on the design of consumer goods in Germany we in this country would have to meet considerable competition.

Mr Ashford was not very impressed by the selection at the fair of about 250 well designed products which were on display in a special pavilion. Textiles and furniture were not represented and he felt that there was an absence of richness and variety.

Although the glassware, ceramics, cutlery and lighting fittings were on the whole of a high standard, Mr Ashford thought that most of the radio and television sets, with their dark veneers and gold trim, seemed over-ostentatious.

British salesmen based on the Continent told Mr Ashford of the difficulty of selling British goods in Germany, even at competitive prices. He continued "for 25 years the German people have had it drummed into them that there is nothing which cannot be made better and cheaper in Germany. The impression I gained from the fair was that their belief is almost wholly true".

### The new copyright act

The Copyright Act 1956, which came into operation on June 1, lays down new rules relating to industrial design; these come under section 10 of the new act, and they specify the circumstances in which a design is regarded as being used industrially as distinct from artistically. This section was introduced to overcome the problem of double protection for designs which arose under the previous law of copyright, and the Registered Designs Act of 1949. Under the provision of the new act, the marketing of articles to which a design has been applied industrially deprives the design of some of the copyright it may enjoy, as an artistic work, under the Copyright Act. Protection for

### Showhouse at Blackheath

The illustration shows the dining area and staircase of a showhouse at Blackheath, which has been furnished and decorated by 'House & Garden' magazine, and which will be open to the public until the end of August. The house, one of several which is being built at Blackheath, was designed for Span Development Ltd by Eric Lyons



designs applied industrially must normally be sought by registration under the Designs Act.

As part of the machinery for delineating the borderline between copyright and industrial design protection, similar rules were made in 1949 which related to designs in which copyright might otherwise subsist under the Copyright Act, 1911. Their terms have remained unchanged since 1912 and their language in relation to 'piece goods' is out-of-date. The new rules, therefore, specify that reproduction of a design on more than 50 single articles constitutes application industrially. Whereas, however, the old rules specified the 'piece goods' in question, the new rules are in wider terms and refer to 'goods manufactured in lengths or pieces other than hand-made goods'.

The problems of legal protection for industrial designs were discussed in DESIGN September 1956; a further article dealing with the implications for manufacturers of the new Copyright Act will be published in September. Copies of the new industrial design rules are available from HMSO, price 5d post paid.

## EXHIBITIONS OVERSEAS

### The Triennale

The eleventh 'Triennale', the international exhibition of modern decorative and industrial arts, and of modern architecture will be held in Milan from July 27–November 4.

AMSTERDAM International Atomic Exhibition: Galitzine & Partners Ltd, 17 Victoria Street, SW1 June 15–September 18  
FRANKFURT German Radio and Television and Gramophone Fair: Lep Transport Ltd, Sunlight Wharf, Upper Thames Street, EC4 August 2–11  
OFFENBACH International Leather Goods (Autumn) Fair: Offenbacher Messegesellschaft mbH, Offenbach am Main, Kaiserstrasse 10, Germany August 31–September 5  
STOCKHOLM International St Erik's Fair: Thirza West Publicity Ltd, 141 New Bond Street, W1 August 31–September 15

FRANKFURT International Autumn Fair: Lep Transport Ltd, Sunlight Wharf, Upper Thames Street, EC4 September 1–5  
LEIPZIG International Autumn Fair: Leipzig Fair Agency, 127 Oxford Street, W1 September 1–8

DUSSELDORF International Exhibition of Sanitary and Heating Equipment: John E. Buck & Co, 47 Brewer St, W1 September 1–8  
SALONIKI International Trade Fair: Fair Committee Office, Thessaloniki, Greece September 1–22

UTRECHT International (Autumn) Trade Fair: W. Friedhoff, 10 Gloucester Place, W1 September 3–12

HELSINKI British Trade Fair: British Overseas Fairs Ltd, 21 Tothill Street, SW1 September 6–22

COLOGNE International Autumn Fair (Household Goods and Hardware): M. Neven du Mont, 123 Pall Mall, SW1 September 7–9  
ZAGREB International Trade Fair: Auger & Turner Groups Ltd, 40 Gerrard Street, W1 September 7–20

LAUSANNE 38th International Fair (Comptoir Suisse): Swiss Legation, 18 Montague Place, Bryanston Square, W1 September 7–22

STRASBOURG 32nd European Fair: R. C. Liebman, 178 Fleet Street, EC4 September 7–22

GHENT International Trade Fair: The Secretary, Belgian Chamber of Commerce, 6 Belgrave Street, SW1 September 7–22

VIENNA International (Autumn) Trade Fair: British Austrian Chamber of Commerce, 29 Dorset Square, NW1 September 8–15

PARIS Radio, Television and Electronics Exhibition: Salon de la Radio, de la Television et de l'Electronique, 23 rue de Lubeck, Paris September 11–23

BERLIN 8th German Industries Fair: M. Neven du Mont, 123 Pall Mall, SW1 September 14–29

MARSEILLES 33rd International Fair: Butlers Advertising Service, 22 St. Giles High Street, WC2 September 14–30

HANOVER 5th European Machine Tool Exhibition: Schenkers Ltd, Royal London House, 13 Finsbury Square, EC3 September 15–24

AMSTERDAM Radio and Television Fair: H. J. Kazemier, Emmalaan, 20, Amsterdam, 2 September 19–26

FRANKFURT International Motor Exhibition: Lep Transport, Sunlight Wharf, Upper Thames Street, EC4 September 19–29  
INNSBRUCK 25th Export and Samples Fair: British Austrian Chamber of Commerce, 29 Dorset Square, NW1 September 21–29

TURIN 7th International Technical Exhibition: Exhibition Secretary, Via Massena, Turin, Italy September 26–October 6

MUNICH 8th German Hotel and Catering Exhibition: Verein Ausstellungs Park, Theresien Hohe 14, Munchen 12 September 26–November 6

PARIS 44th International Motor and Cycle Show: R. C. Liebman, 178 Fleet Street, EC4 October 3–13

PARIS Business Machines and Office Equipment Exhibition: Salon de l'Equipment de Bureau, 6 Place de Valois, Paris October 10–20

COPENHAGEN International Electric and Atomic Show: The Secretary, Danish Electrical Development Association, Copenhagen, Denmark October 18–27

LJUBLJANA International Radio and Telecommunications Exhibition: Gospodarsko Rastavice, Titova 50, Ljubljana, Yugoslavia October 26–November 3

TURIN 39th International Motor Show: Comitato Organizzatore 37 Salone Internazionale Dell'Automobile, Corso Galileo Ferraris 61, Turin, Italy October 30–November 10

### SIA exhibition in the Midlands

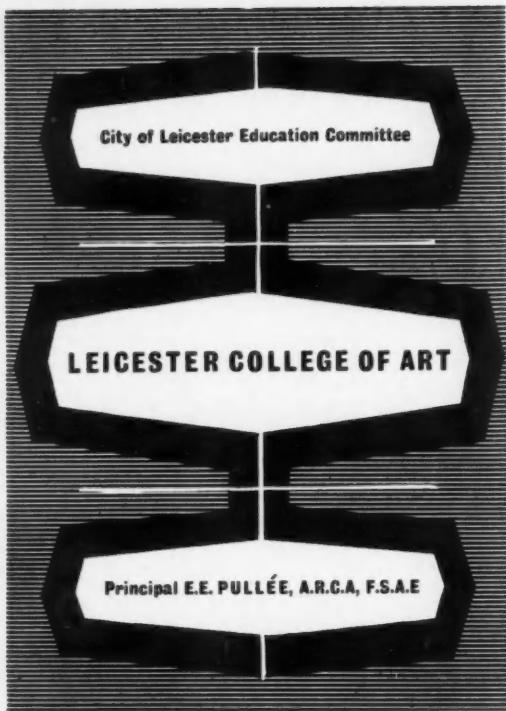


Part of the SIA exhibition in Birmingham

The Society of Industrial Artists (Midland Region) exhibition, 'Design 57', was organised by its chairman Robert Cantor, to run concurrently with the BIF in Birmingham. Although quite small, this exhibition seemed to stand as a token of the constantly improving relations between industry and design. The siting in the Engineering Centre's permanent exhibition served to highlight the hundred or so exhibits there by the society's members. As would be expected in the heart of the Midlands the bias was towards engineering and mass produced products, but not to the exclusion of the craftsman or graphic artist.

The exhibits included heaters, cookers, washing machines, lighting fittings, furniture, tableware and ironmongery, etc, together with display panels of photographs, typography and illustration. The simple

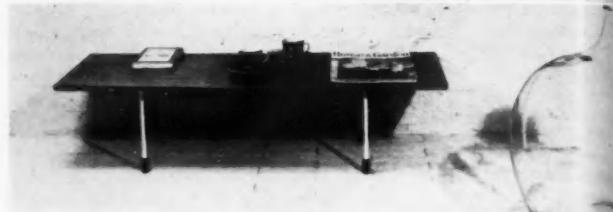
*continued on page 59*



COMPONENT FURNITURE is intended both for the designer with his own ideas and for those who simply want a good design at a very modest price. Complete pieces can be chosen from the catalogue or an individual design created by carefully choosing each part from the enormous range of sizes, colours and finishes.

#### component furniture

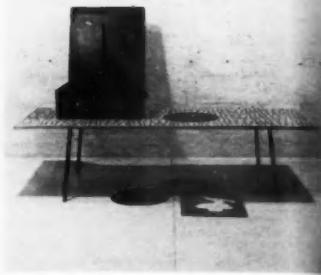
is much more than just steel legs and plywood table tops — there are eight types of leg in lengths from 9 to 28 inches and in fourteen colours. The table tops are in seven standard sizes and eight finishes. The range includes storage units and steel ladder shelving with hardwood shelves in various finishes.



component furniture is widely used for exhibitions, shopfitting and display work generally, where the size and colour ranges are of particular value. It is available only direct from the manufacturers, J. Scott Smith Limited. If you would like the complete range of catalogues please write to them at

#### Victoria Road Deal Kent

top: 40 inch diameter ebonised dining table on white braced legs price — £6 5s delivered  
centre: 40 x 15 polished mahogany table on 9 inch vertical legs price — 49 shillings delivered  
below: 48 x 17 beech edged table surfaced with Tibor Texturide on 12 inch splayed legs — £5 3s



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cylinder and  
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ELECTROS  
and STEREOS

•

Artists and  
Designers

## NEWS

presentation of the display, by Norman Wilkinson, succeeded in overcoming rather difficult surroundings.

P. WHITWORTH

### COMPETITIONS

#### Plastics design award

The Horners' Company is offering an award for designs in plastics. Designers are asked to submit articles suitable for moulding or fabricating wholly or mainly from plastics materials; the aim of the competition, which is open to anyone under 30 years of age, is to encourage young craftsmen to design in these materials. The Council of the British Plastics Federation is administering the award for the Horners' Company, and entries should reach the Federation at 47 Piccadilly, W1, by September 30.

#### US award for British designer

In an international home furnishings competition organised recently by the American Institute of Decorators, John Palmer, head London designer of John Crossley & Sons Ltd, the carpet manufacturer,



John Palmer

was awarded a Citation of Merit for 'Foliata', one of the carpet designs he has produced for the firm. His was the only citation awarded to a British designer. An exhibition of all the winning designs will tour the US until early next year.

#### RSA bursaries

Particulars of the 1957 industrial art bursaries competition organised by the Royal Society of Arts have been announced. The bursaries are offered to young designers who intend to take up industrial design as a career. Sections on stage setting, packaging and typography will be included among the general categories for the first time in this year's competition. Closing date for entries is October 14; entry forms and full particulars can be obtained from the Royal Society of Arts, John Adam Street, WC2.

#### Sales literature

The RIBA, and The Building Centre are jointly organising a competition among manufacturers, merchants and trade associations, to promote the good design of sales and information literature published for architects and builders. Entries should be sent to the Director, The Building Centre, 26 Store Street, WC1 by midday on July 31.

All examples of literature submitted must comply with

the British Standard 1311 which sets out the sizes for printed matter as laid down and accepted by the RIBA and various trade associations.

### MISCELLANEOUS

#### DESIGN'S covers

This month's cover was designed by Tom Eckersley, the well known poster designer. Mr Eckersley is senior lecturer in design at the London School of Printing and Graphic Arts, and was awarded the OBE for his services to British poster design in 1948.

The cover for the May issue was designed by Tom Wolsey who heads a design group in W. S. Crawford Ltd, the advertising agent. This group specialises in advertising work for fashion houses, department stores, and large industrial concerns.

#### Airline's department for design

The American Society of Industrial Designers has announced that one of its members, E. Gilbert Mason, has become director of industrial design for American Airlines, to take charge of an extensive programme to design the interiors of the company's new turboprop Lockheed 'Electra' fleet. Mr Mason, who has been working with Lockheed's consultant Henry Dreyfuss, is planning a new living room atmosphere for the aircraft, with fixed low backed seats. He believes these seats have many advantages over the traditional high-backed reclining type which, he maintains, at full recline prevent the passenger in the seat behind from getting out. The new seats have been designed to hug the body and will be more comfortable, at the same time allowing the passenger to get up and walk around without disturbing his neighbours.

American Airlines is claimed to be the first airline to employ an industrial designer full time on aircraft interiors.

#### Research award

R. H. Litherland, head master of the Royal Technical College School of Art, Salford, has been granted a Leverhulme research award to study "methods of

#### New London showroom

Marley Tiles Ltd has opened London showrooms at 251 Tottenham Court Road, W1. The illustration shows the ground floor area, which has been designed to give maximum flexibility in the arrangement of displays. The designer was James Gardner and the architect Howard V. Lobb & Sons.



#### Reply paid improvements refused

Strict regulations laid down by the GPO for reply paid cards usually result in ugly, badly proportioned designs such as the card for W. & A. Gilbey Ltd, top. It is a pity, therefore, that F. H. K. Henrion's greatly improved design for the same firm, bottom, though originally passed by the GPO, was finally turned down as not conforming with Post Office regulations. Such restrictions which strangle design progress should be seriously reconsidered by the authorities.

teaching engineering design aesthetics". Mr Litherland will spend about six weeks this year in Italy touring factories, technical colleges and art schools, and a similar period in Switzerland and Germany next year.

During this year the school has had 50 part-time day and evening students attending the industrial design courses from six engineering firms and will be enlarging these classes next year. Representatives from light and heavy engineering firms are included on the school's advisory committee.

#### New company

Hans Schleger, who designed The Design Centre symbol, has formed his own company, to work on graphic design, exhibitions, printing, etc. It will be known as Hans Schleger & Associates Ltd, and the registered office is at North Lodge, Seven Hills Road, Cobham, Surrey.

#### Impact adhesive

A new general purpose impact adhesive 'Tretoband 404' has been developed by Tretol Associated Products. The adhesive is claimed to be proof against moisture, oil, grease, petrol and dilute acids, and to be suitable for fixing a wide variety of materials.

#### Trade literature

'Holoplast Movable Walls', issued by Holoplast Ltd, 116 Victoria Street, SW1, describes the uses and methods of erection of prefabricated 'Holoplast' panels. 'Armstrong Flooring', illustrates the characteristics and the colour range of tiles and floor coverings manufactured by the Armstrong Cork Co Ltd, Bush House, Aldwych, WC2.

'Arc Welds, production and inspection', one of a series on welding and associated processes, published

continued on page 61

## LEFT-HANDED, BEARDED OR GINGER-HAIRED...

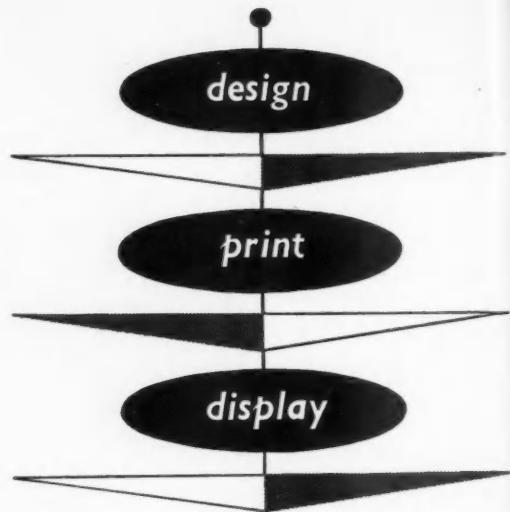
...supposed signs of the rebel,  
the fiery defendant of justice,  
the true artist, the man of  
character — just the types to  
appreciate the qualities of our  
superb Sussex Oak

## TURNERS of LEWES

Sussex Oak has character —  
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# It pays

to read DESIGN. If you have found this issue of DESIGN interesting, why not see it regularly? DESIGN has authoritative news each month of new products from Britain and from overseas. It pays to read DESIGN. If you already see DESIGN please pass this on to a friend.



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Description of firm \_\_\_\_\_

## LETTERS

## BOOKS

by the British Welding Research Association, 29 Park Crescent, W1, this booklet describes the requirements for producing arc welds. 2s 6d.

'Design in Timber', published by The Timber Development Association, 21 College Hill, London EC4, illustrates examples of modern timber construction and describes the services offered by the association.

'Silicone based paints for heat stability and weather resistance', published by Midland Silicones Ltd, includes a list of paint manufacturers supplying silicone paints.

'Surface transformation by the Pateena Process' describes a paint spray process developed by Paripan Ltd for re-texturing surfaces of wood, metal, fibre, hardboard, etc.

## LETTERS

### The missing technique

SIR: The articles on 'Design and Stress Analysis' by L. Bruce Archer have been very helpful, but the example of the Ernest Race chair, in your May issue, only proves by theory what one would expect a good designer to achieve intuitively.

Most of the points of weakness shown are abrupt changes of section. I suspect that Mr Race showed smooth transition curves in his original sketches in 1946, but the patternmaker took it upon himself to 'simplify' the design. It became an assembly of radiused rectangular pieces and fillets, with which he built up his pattern for the foundry.

A sculptor, with his natural feeling for form, would have avoided this, but the patternmaker and engineering draftsman are usually slaves to the rectilinear limitations of their method of working. It is only in a few industries that the effort is taken to overcome this. It was shown in your recent article on the Ford cars (DESIGN August 1956, pages 16-22) that the effort is

worthwhile commercially, and in aircraft it is essential for aerodynamic reasons.

The trained eye has the remarkable ability of shape or pattern recognition, so that an engineer who has seen the correct theoretical shape of a crane hook, can reproduce its characteristics of curvature quite accurately when sketching another design.

As Mr Archer suggests in his article, an expert analysis of typical designs can be obtained in collaboration with an academic institution. From these examples similar designs can be done subsequently by interpolation. What we then lack is an economical way of dimensioning this free shape precisely on a drawing, and converting it into a pattern for casting: a problem of the missing technique!

D. L. JOHNSTON  
Automation Consultants  
and Associates Ltd  
341-349 Oxford Street  
London W1

### Cutlery for New Zealand

SIR: I received a copy of your January issue recently and found it most interesting. Manufacturers' comments in 'Pointers' on page 14 certainly seem to justify the establishment of The Design Centre and I greatly admired the cutlery illustrated on that page. There is a growing demand for good quality stainless steel cutlery out here in New Zealand. Arising from our 'welfare state' developments, domestic help is a thing of the past and New Zealand women are most receptive to anything which tends to reduce household labour. Good quality Swedish stainless steel cutlery has therefore - though expensive - gone quietly ahead and will, I believe, continue to do so.

The article 'A Future for Moulded Pulp' by F. C. Ashford (pages 43-7) was, to say the least, thought provoking and gave a good background picture.

ROGER LASCELLES  
Foreign and Intercolonial Buying Agent  
130 Hereford St  
Christchurch CI  
New Zealand

### Electronic equipment on show

IBM, United Kingdom Ltd, has opened a new head office at 101 Wigmore Street, W1. The firm's showroom, illustrated here, was designed by Jonathan Green, and the displays include some of the company's data processing equipment which was discussed in the article 'Anonymity and repetition' (DESIGN February pages 37-41).



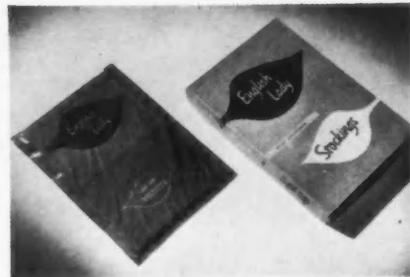
### Design for better listening

SIR: I am rather mystified by the designer's approach to the design of radios, gramophones and television sets as exemplified in the feature 'Radio and TV Cabinets' (DESIGN February pages 17-23), and similar articles.

I have still to read an article which emphasises that the radio, gramophone and television set are first and foremost musical instruments.

Since the war we have produced gramophone records and tape recordings which have the quality of a first class 'live' concert. The BBC has done much to transmit similar quality on VHF wavebands. Small pioneering firms such as the Wharfedale Wireless Works, and the Acoustical Manufacturing Co Ltd, and others have designed and built brilliant engineering components to enable this extremely high standard of musical entertainment to be enjoyed in the home, but without exception all so called designers have fought shy of studying the engineering problems involved, and they have failed to produce really first class musical instruments in cabinets for the benefit of the mass market.

The most important and most difficult task is to



### Selling stockings

These stocking packs were designed by John Beadle of THM Partners for the Debenham group of companies. The carton is pastel blue, while the leaf shapes are in black and white. The 'English Lady' type face was specially designed for the packs by THM Partners.

bring home to the public the conception of a properly designed speaker unit mounted separately from the remainder of the apparatus in the most suitable position in the room, judged from a purely acoustic standpoint.

Once the conception of a separate speaker is accepted there is no limit to the number of arrangements possible for housing the remaining apparatus, which resolves itself into mounting the turntable board with the pick-up, designing a small cupboard to take the amplifier, arranging the control unit in a suitable position, and providing a receptacle for records.

But if we accept the fact that records can be housed in a separate cabinet like books, there is no reason why the gramophone and wireless components should not be mounted on an elaborate tea trolley with wheels, and the controls fixed at armchair level.

This arrangement would not only produce music far superior to any radiogram at any price at present on the market, but is elastic enough to be adapted for any size or shape of house.

E. L. M. SHIPWAY  
478 Gillott Rd  
Edgbaston  
Birmingham

## BOOKS

Counter-attack against subtopia, Ian Nairn, The Architectural Press, 12s 6d

'Counter-Attack' is a brilliantly conceived operation. How successful it will be remains to be seen. It must have taken far more intricate staff work than its predecessor 'Outrage' which was in effect The Blast of the Trumpet. So many of us deplore the debasement of standards in town and country, but so few of us feel we can do anything about it. When joint action is taken it is almost always to assume a defensive position, a sort of hedgehog fortress, around which the tide of invasion flows remorselessly on. Hence the many societies for preservation. But what, the reader might ask, of the numerous planning acts, the bye-laws and controls, not to mention the magazines of good taste, the

continued on page 63

"... for the important papers  
of important people"



A NEW PRESENTATION OF FINE  
OFFICE FURNITURE BY **MAUBARD**  
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## FABRIC DESIGNER

required (aged 30 to 35) as assistant to the Design Manager of a progressive plastics firm in the north-west. In addition to having a flair for, and appreciation of, good design, applicants should have a working knowledge of roller making plus some experience in the printing and colouring up of designs generally. Applications, with full account of past experience, age and personal details, to

BOX 246, DESIGN, 28 HAYMARKET, LONDON  
S.W.1

## GRANADA **TV** NETWORK

require an experienced  
**graphic designer**

to join a progressive design group for  
work on captions and promotions for

### TELEVISION

Full details to Personnel Officer, MANCHESTER 3

## Classified advertisements

Rates: 9d per word (minimum, 15s). Box numbers, 1s extra

Copy: Last date for copy is 10th of month preceding date of issue

### RECORD OF DESIGNERS

MANUFACTURERS requiring the services of designers, whether for staff positions or in a consultant capacity, are invited to apply to the Record of Designers, CoID, London, or to the CoID, Scottish Committee, 46 West George Street, Glasgow C2. They can obtain a short list of designers suitable to their particular purposes, which should be explained in some detail. This service is free to British manufacturers and incurs no obligation.

### SITUATIONS VACANT

LONDON COUNTY COUNCIL

BARRETT STREET TECHNICAL COLLEGE  
September 1957

Grade 1 Head of Design Department to organise the design work of the college and to co-ordinate it with the practical work of the Dress, Tailoring, Embroidery and Hairdressing Departments. Burnham F. E. salary scale (man) £1,250 x £30 - £1,400, (woman) £1,107 3s. - £1,400 includes equal pay additions, both plus London allowance. Application forms from Secretary at College, Barrett Street, W1, to be returned by 10th July 1957. (1112)

INDUSTRIAL DESIGNER, preferably aged about 30 and with at least 2/3 years' industrial experience, is required by The General Electric Co Ltd. N.D.D. desirable. Apply in writing to the Staff Manager, Magnet House, Kingsway, London WC2.

PRODUCTION DIRECTOR required by expanding designer-owned furniture company. Processes include steel fabrication, upholstery, stove-enamelling, some plastics and woodworking. Must be civilised, reasonably brutal, adaptable, 25-40. Box 248, DESIGN, 28 Haymarket, London SW1.

DERBY AND DISTRICT COLLEGE OF ART  
Principal: T. Wrigley, A.R.C.A. (Lond.), N.R.D.  
Department of Commercial and Industrial Design  
Required in September, or as soon as possible thereafter a full-time Assistant Grade B to teach DRAWING, DESIGN and INTERIOR DECORATION in the Painting and Decorating Section. Salary Burnham Further Education Scale for Assistants Grade B - £650 x £25 to £1025 with allowance for Degree or equivalent and approved training and up to twelve increments for approved industrial experience.  
Further particulars and application forms may be

obtained from the Principal, Derby and District College of Art, Green Lane, Derby, to whom applications should be returned within fourteen days of appearance of this advertisement.

C. MIDDLETON, Secretary to Joint Committee

THE COUNCIL OF INDUSTRIAL DESIGN requires a young assistant to the Retail Liaison Officer, to make arrangements for courses, small exhibitions, promotional material, etc. Some travelling. Good educational background and strong interest in design essential. Retail experience preferred. Under 40. Starting at £490 - £722 according to experience, rising to £800. Contributory pension scheme. Write giving details of age, education, posts held with dates, to Establishment Office, 28 Haymarket SW1.

### CEMA

The Council for the Encouragement of Music and the Arts (N.I.). ART SUPERVISOR. Salary - £700 to £1,000 (paying according to qualifications)

CEMA requires an ART SUPERVISOR. It is essential that applicants for this post should have a good educational background with some training in Art or an allied subject. The main duties of this officer will be to assist the General Secretary in the organisation and management of Art Exhibitions, Art Film Tours, Competitions, etc, but there will also be duties which will not necessarily be confined to the art side of CEMA's work. The work will entail a fair amount of travelling throughout Northern Ireland and will be largely of a public nature. It is very desirable that the Art Supervisor should be able to give informal lectures on exhibition work. For further details and application form please apply to the General Secretary, CEMA, Tyrone Building, Ormeau Avenue, Belfast. Closing date for applications Monday, 8th July 1957.

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## BOOKS

broadcasting and television? Have they achieved nothing? Very little, must be the answer, and as far as town planning goes, most of it has been in the wrong direction. I am certain that the authors of this book are right in demanding a basic rethinking of the whole problem. We need cities that are true cities, essentially compact, suburbs that form a real Arcadia, a countryside which is predominantly agricultural and what is left wild to be wholly wild for recreation. 'Counter-Attack' puts as much emphasis on urban design as on preserving land for farming. It postulates a new philosophy in town planning, the very reverse of the low-density sprawl, which has usurped the name with a generation of architects and had such disastrous results in legislation. That is essential for a start because it is in the holy name of planning that both the new housing estates and the older villages are being spread-eagled over the map of England.

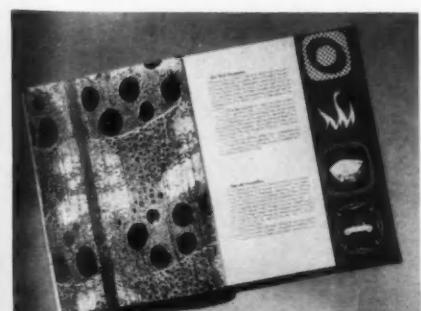
Much of the illustrated portion of the book is devoted to detail such as walls and hedges, road signs and shelters, street furniture and advertising, always with the same underlying idea of judging them as suitable or not for their situation. Perhaps a little more thought could have been given to the *obiter dicta*. A farmer's hedges are not "bushy and rough" if they are well laid. Quite the contrary. Moreover they are now commonly machine trimmed every year. Rail and post fences may give horizontality to a landscape but are both too expensive and permanent for dairy farmers. In road signs legibility is top priority, which is just where ours fail so badly. Lastly, I doubt if the balance sheet of hill farming versus forestry will hold water. I make these criticisms because I hate to see chinks in the armour of 'Counter-Attack'. In general it is a job superlatively well done except, alas, in typography, which is the usual puzzle with which the noble 'Architectural Review' delights to tease its readers.

NOEL CARRINGTON

**Pattern and texture**, J. A. Dunkin Wedd, Studio Ltd, £1.5s

Whatever the function of an object or an environment, for most of us the sparkle of appreciation springs from visual surface qualities. The pattern and colour of landscape or military pageant develop rhythms of interest and set essential scale. Nuances of accent, more intimate and subtle, belong to texture. It is on his awareness and response to pattern and texture in this broad context that the designer calls when creating pattern as decoration, for vital design springs from a stimulus, not a formula.

*A micro-photograph in a spread from 'Pattern and texture'.*



J. A. Dunkin Wedd's purpose is to stimulate and he succeeds. From a premise that the impetus of traditional design is insufficient to serve the needs of today and today's materials he searches for, and finds, new sources of design through the eyes of the camera, microscope and photogram. His book is full of rich visual sensation, excellently reproduced. Many plates demonstrate the essential unity of pattern with texture, which through the eye of the microscope displays the logic and variety of structure and shape which makes it pattern.

Mr Wedd's comment is as stimulating as his illustrations, for he has a nice wit and a ranging mind. But the microscope which he uses as an eye is insensitive to colour and while pleasing the mind rarely touches the emotions. A rose has an appeal of association which is denied to quartic curves and zinc oxide smoke, and this is significant. Pattern must satisfy as well as stimulate and the uncaptioned plates are double edged: aluminium magnified 7000 times looks remarkably like a crate of oranges, and the identification facilitates acceptance.

RALPH DOWNING

**Design in jewellery**, Peter Lyon, Peter Owen Ltd, £1.1s. **How to make modern jewelry**, Charles J. Martin, The Museum of Modern Art, Alec Tiranti Ltd, 6s 6d

'Design in jewellery' is not intended to be a history or reference book; it aims to be an introduction to the appreciation of jewellery. This it achieves by covering many aspects, the history, economics, psychology, design, collection, techniques and teaching of jewellery, so that its title is misleading.

Some of the technical information is not accurate; the author stresses the need for a muffle in enamelling, whereas, in the trade, a blow pipe is used very efficiently and successfully. And in teaching, I question the statement that trade schools are compelled to meet the requirements of firms who will later employ the students. The policy is laid down by the education authority, in collaboration with the trade, with due regard to individual and educational needs.

The illustrations, photographs and drawings I found disappointing, and more care might have been devoted to their selection and execution.

Nevertheless, the book is a useful acquisition for those interested in jewellery.

The American publication 'How to make modern jewelry' is based on methods and techniques used in the war veterans' Art Center at the Museum of Modern Art in New York. Some of the methods advocated seem strange, for example lead soldering of silver, soldering after enamelling, making of settings, but, possibly, the limitations of the students dictated these unorthodox means.

Most manuals of this type aim only at teaching the technical skills, but here design is as important as technique, and the reader is encouraged to develop his own style.

The photographs of pieces, contemporary and historical, lack that definition and quality essential in this fine craft; the drawings are excellent.

Occupational therapists, teachers, and club leaders have long searched for a guide to the designing and making of jewellery. This book is an admirable means of self instruction for persons working alone, as well as an aid for teachers.

ERIC G. CLEMENTS

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